

Name \_\_\_\_\_

**MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.**

Solve the problem.

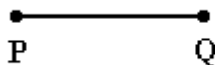
1) Draw the segment whose endpoints are P and Q. Name the segment in two ways.

1) \_\_\_\_\_

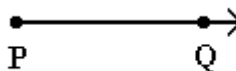
•  
P

•  
Q

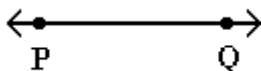
A)

 $\overline{PQ}$  or  $\overline{QP}$ 

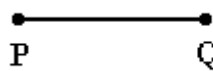
B)

 $\overrightarrow{PQ}$  or  $\overrightarrow{QP}$ 

C)

 $\leftrightarrow$  or  $\leftrightarrow$ 

D)



PQ or QP

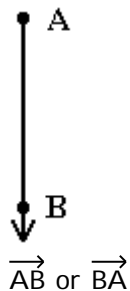
2) Draw the segment whose endpoints are A and B. Name the segment in two ways.

2) \_\_\_\_\_

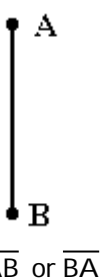
• A

• B

A)

 $\overrightarrow{AB}$  or  $\overrightarrow{BA}$ 

B)

 $\overline{AB}$  or  $\overline{BA}$ 

C)

 $\leftrightarrow$  or  $\leftrightarrow$ 

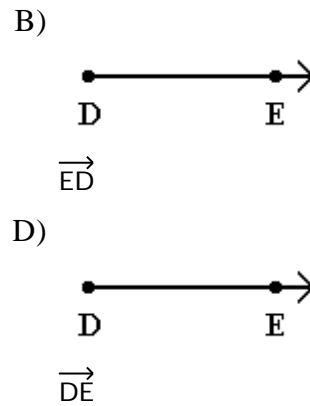
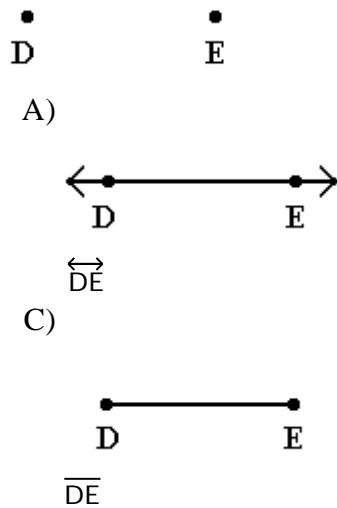
D)



AB or BA

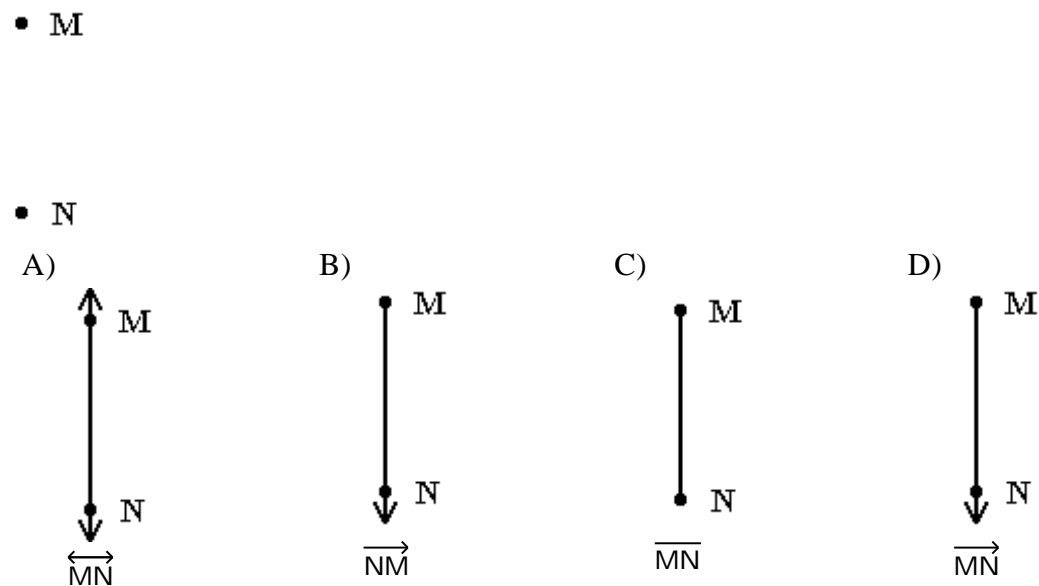
3) Draw the ray with endpoint D . Name the ray.

3) \_\_\_\_\_



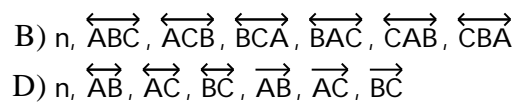
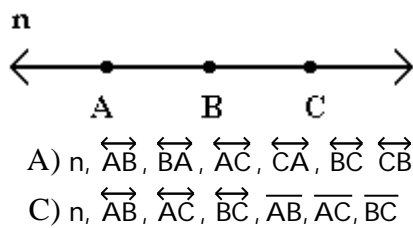
4) Draw the ray with endpoint M . Name the ray.

4) \_\_\_\_\_



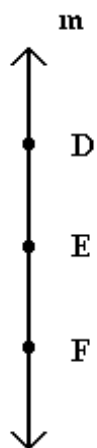
5) Name the line in seven different ways.

5) \_\_\_\_\_



6) Name the line in seven different ways.

6) \_\_\_\_\_



- A)  $m$ ,  $\overleftrightarrow{DE}$ ,  $\overleftrightarrow{DF}$ ,  $\overleftrightarrow{EF}$ ,  $\overline{DE}$ ,  $\overline{DF}$ ,  $\overline{EF}$   
 C)  $m$ ,  $\overleftrightarrow{DE}$ ,  $\overleftrightarrow{DF}$ ,  $\overleftrightarrow{EF}$ ,  $\overrightarrow{DE}$ ,  $\overrightarrow{DF}$ ,  $\overrightarrow{EF}$

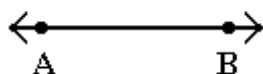
- B)  $m$ ,  $\overleftrightarrow{DE}$ ,  $\overleftrightarrow{ED}$ ,  $\overleftrightarrow{DF}$ ,  $\overleftrightarrow{FD}$ ,  $\overleftrightarrow{EF}$ ,  $\overleftrightarrow{FE}$   
 D)  $m$ ,  $\overleftrightarrow{DEF}$ ,  $\overleftrightarrow{DFE}$ ,  $\overleftrightarrow{EDF}$ ,  $\overleftrightarrow{EFD}$ ,  $\overleftrightarrow{FDE}$ ,  $\overleftrightarrow{FED}$

7) Draw the line which passes through A and B. Name the line in two ways.

7) \_\_\_\_\_

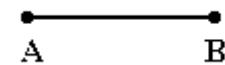


A)



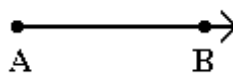
$\overline{AB}$  or  $\overline{BA}$

C)



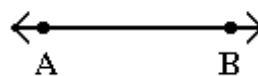
$\overline{AB}$  or  $\overline{BA}$

B)



$\overrightarrow{AB}$  or  $\overrightarrow{BA}$

D)



$\overleftrightarrow{AB}$  or  $\overleftrightarrow{BA}$

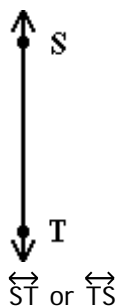
8) Draw the line which passes through S and T. Name the line in two ways.

8) \_\_\_\_\_

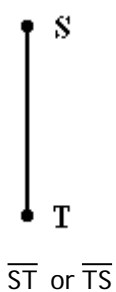
• S

• T

A)



B)



C)



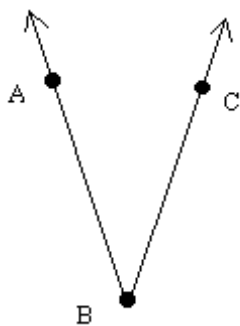
D)



Name the angle in five different ways.

9)

9) \_\_\_\_\_



A) Angle B, angle CAB,  $\angle ABC$ ,  $\angle CBA$ , or  $\angle B$

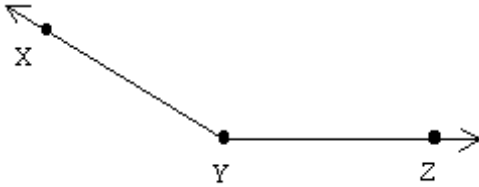
B) Angle ABC, angle CBA,  $\angle ABC$ ,  $\angle CBA$ , or  $\angle B$

C)  $\angle ABC$ ,  $\angle CBA$ ,  $\angle B$ ,  $\angle BCA$ , or angle B

D) Angle ABC, angle B, angle CBA, angle ACB, or  $\angle B$

10)

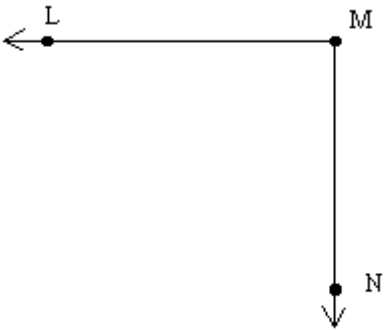
10) \_\_\_\_\_



- A) Angle ZYX, angle XZY,  $\angle XYZ$ ,  $\angle ZYX$ , or  $\angle Y$   
 B) Angle ZYX,  $\angle XYZ$ ,  $\angle ZYX$ ,  $\angle XZY$ , or  $\angle Y$   
 C) Angle ZYX, angle XYZ,  $\angle Y$ ,  $\angle ZXY$ , or angle ZYX  
 D) Angle XYZ, angle ZYX, angle ZYX,  $\angle XYZ$ , or  $\angle Y$

11)

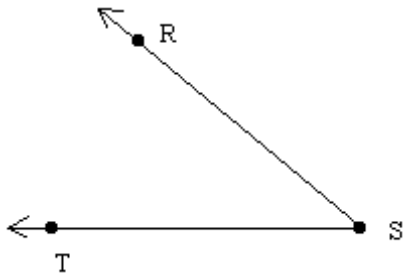
11) \_\_\_\_\_



- A)  $\angle LMN$ ,  $\angle N$ ,  $\angle NML$ , angle NML, or angle N  
 B) Angle L, angle LMN, angle NML,  $\angle LMN$ , or  $\angle L$   
 C)  $\angle M$ ,  $\angle LMN$ ,  $\angle NML$ , angle NML, or angle LMN  
 D)  $\angle LNM$ ,  $\angle NLM$ ,  $\angle M$ , angle LMN, or angle M

12)

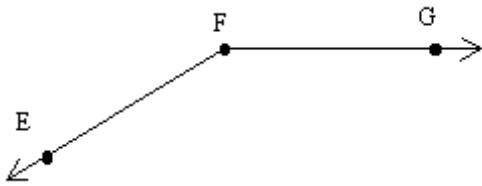
12) \_\_\_\_\_



- A) Angle RST, angle TRS, angle S,  $\angle TSR$ , or  $\angle S$   
 B) Angle T, angle TSR,  $\angle T$ ,  $\angle TSR$ , or  $\angle RST$   
 C)  $\angle S$ ,  $\angle TSR$ , angle RST, angle TSR, or  $\angle RST$   
 D)  $\angle RST$ ,  $\angle R$ , angle RST, angle R, or  $\angle TSR$

13)

13) \_\_\_\_\_

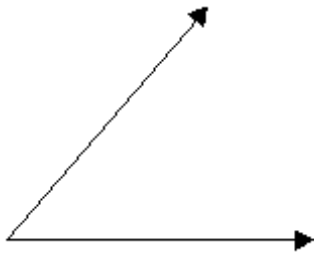


- A) Angle GFE,  $\angle F$ , angle EFG,  $\angle EFG$ , or  $\angle GFE$
- B) Angle EFG,  $\angle EFG$ , angle E,  $\angle E$ , or  $\angle GFE$
- C) Angle GFE,  $\angle GFE$ , angle EGF,  $\angle EGF$ , or  $\angle G$
- D) Angle F, angle EFG, angle GEF,  $\angle EFG$ , or  $\angle F$

Use a protractor to measure the angle.

14)

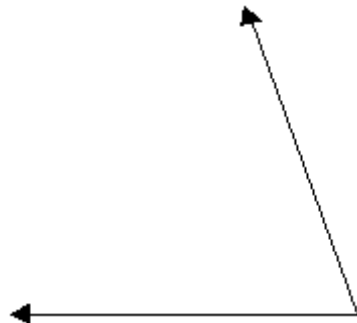
14) \_\_\_\_\_



- A)  $40^\circ$
- B)  $80^\circ$
- C)  $50^\circ$
- D)  $130^\circ$

15)

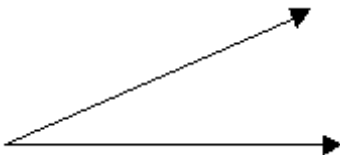
15) \_\_\_\_\_



- A)  $70^\circ$
- B)  $110^\circ$
- C)  $20^\circ$
- D)  $40^\circ$

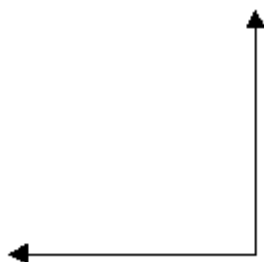
16)

16) \_\_\_\_\_



- A)  $65^\circ$
- B)  $155^\circ$
- C)  $25^\circ$
- D)  $180^\circ$

17)



A)  $0^\circ$

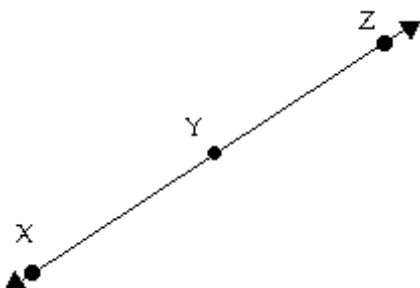
B)  $90^\circ$

C)  $180^\circ$

D)  $45^\circ$

17) \_\_\_\_\_

18)



A)  $90^\circ$

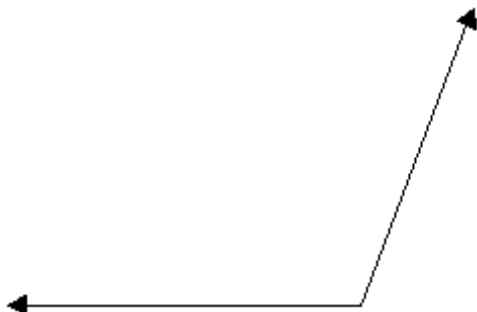
B)  $45^\circ$

C)  $0^\circ$

D)  $180^\circ$

18) \_\_\_\_\_

19)



A)  $40^\circ$

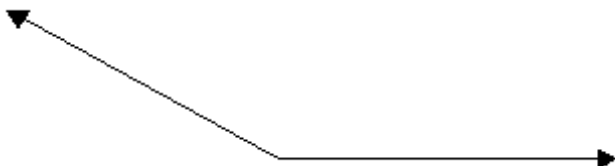
B)  $110^\circ$

C)  $180^\circ$

D)  $70^\circ$

19) \_\_\_\_\_

20)



A)  $120^\circ$

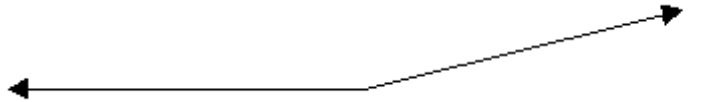
B)  $180^\circ$

C)  $30^\circ$

D)  $150^\circ$

20) \_\_\_\_\_

21)



A)  $150^\circ$

B)  $15^\circ$

C)  $165^\circ$

D)  $180^\circ$

21) \_\_\_\_\_

Tell whether the angle is acute, right, obtuse, or straight.

22)



A) Acute

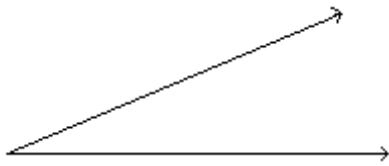
B) Obtuse

C) Straight

D) Right

22) \_\_\_\_\_

23)



A) Straight

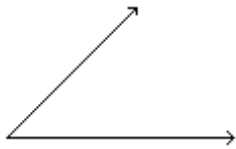
B) Right

C) Acute

D) Obtuse

23) \_\_\_\_\_

24)



A) Obtuse

B) Straight

C) Acute

D) Right

24) \_\_\_\_\_

25)



A) Straight

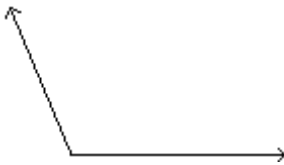
B) Acute

C) Obtuse

D) Right

25) \_\_\_\_\_

26)



A) Straight

B) Right

C) Acute

D) Obtuse

26) \_\_\_\_\_



27)



A) Acute

B) Right

C) Obtuse

D) Straight

27) \_\_\_\_\_

28)



A) Straight

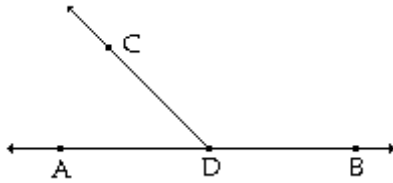
B) Right

C) Obtuse

D) Acute

28) \_\_\_\_\_

29)  $\angle ADB$



A) Obtuse

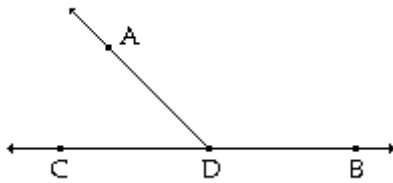
B) Acute

C) Straight

D) Right

29) \_\_\_\_\_

30)  $\angle ADB$



A) Straight

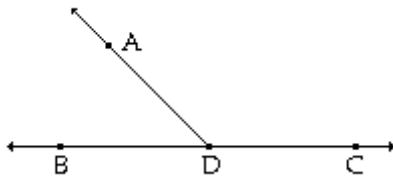
B) Right

C) Acute

D) Obtuse

30) \_\_\_\_\_

31)  $\angle ADB$



A) Obtuse

B) Acute

C) Straight

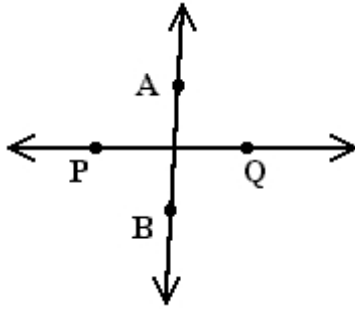
D) Right

31) \_\_\_\_\_

Determine whether the lines are perpendicular. Use a protractor.

32)

32) \_\_\_\_\_

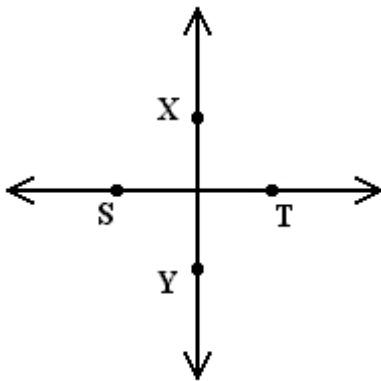


A) Yes

B) No

33)

33) \_\_\_\_\_

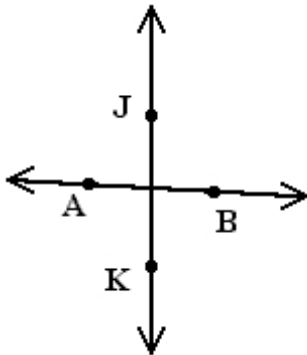


A) Yes

B) No

34)

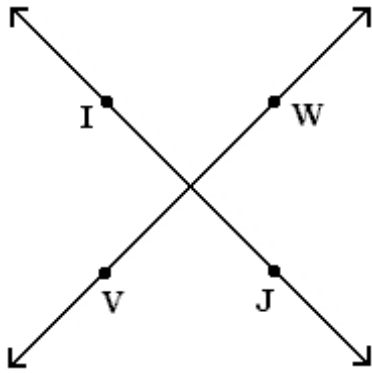
34) \_\_\_\_\_



A) Yes

B) No

35)

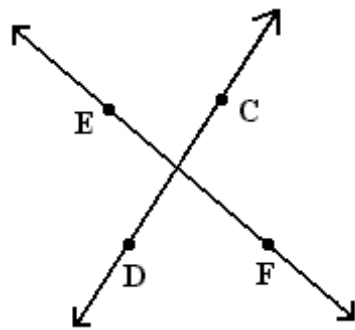


A) Yes

B) No

35) \_\_\_\_\_

36)

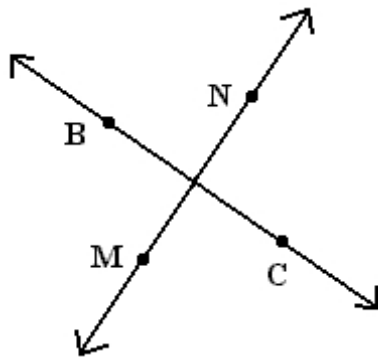


A) Yes

B) No

36) \_\_\_\_\_

37)

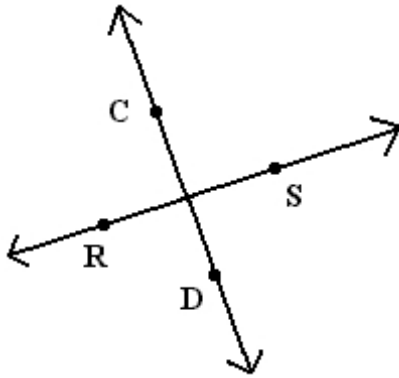


A) Yes

B) No

37) \_\_\_\_\_

38)



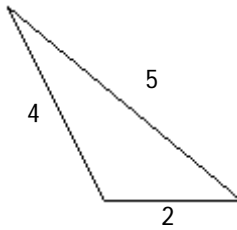
A) Yes

B) No

38) \_\_\_\_\_

Classify the triangle as equilateral, isosceles, or scalene. Then classify it as right, obtuse, or acute.

39)



A) Isosceles; acute

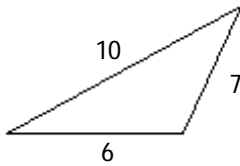
C) Isosceles; obtuse

B) Scalene; acute

D) Scalene; obtuse

39) \_\_\_\_\_

40)



A) Scalene; obtuse

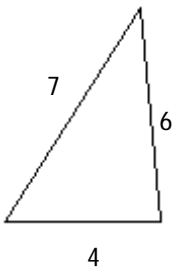
C) Isosceles; acute

B) Isosceles; obtuse

D) Scalene; acute

40) \_\_\_\_\_

41)



A) Scalene; acute

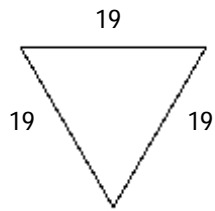
C) Isosceles; obtuse

B) Equilateral; obtuse

D) Equilateral; acute

41) \_\_\_\_\_

42)

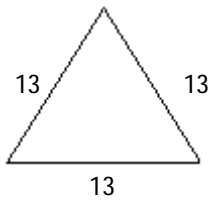


- A) Scalene; acute
- C) Equilateral; acute

- B) Isosceles; obtuse
- D) Scalene; right

42) \_\_\_\_\_

43)

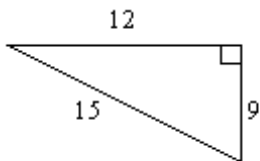


- A) Scalene; acute
- C) Scalene; right

- B) Equilateral; acute
- D) Isosceles; obtuse

43) \_\_\_\_\_

44)

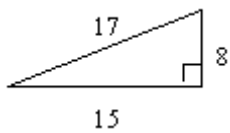


- A) Isosceles; acute
- C) Scalene; acute

- B) Isosceles; right
- D) Scalene; right

44) \_\_\_\_\_

45)

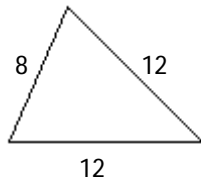


- A) Equilateral; right
- C) Equilateral; obtuse

- B) Scalene; obtuse
- D) Scalene; right

45) \_\_\_\_\_

46)

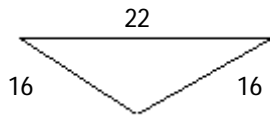


- A) Equilateral; right
- C) Equilateral; acute

- B) Isosceles; acute
- D) Isosceles; right

46) \_\_\_\_\_

47)



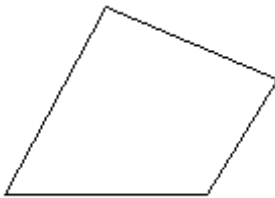
- A) Isosceles; obtuse
- C) Scalene; obtuse

- B) Equilateral; obtuse
- D) Equilateral; acute

47) \_\_\_\_\_

Classify the polygon by name.

48)



A) pentagon

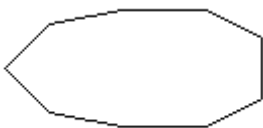
B) quadrilateral

C) rectangle

D) rhombus

48) \_\_\_\_\_

49)



A) decagon

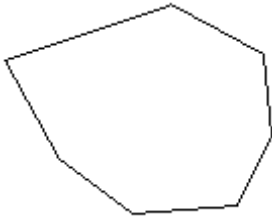
B) heptagon

C) nonagon

D) octagon

49) \_\_\_\_\_

50)



A) hexagon

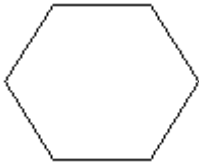
B) octagon

C) heptagon

D) nonagon

50) \_\_\_\_\_

51)



A) octagon

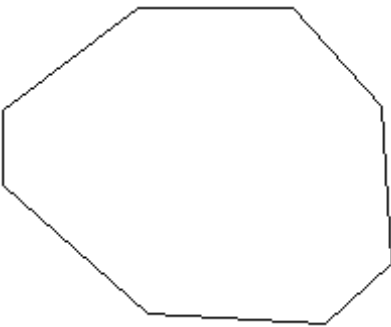
B) heptagon

C) hexagon

D) pentagon

51) \_\_\_\_\_

52)



A) octagon

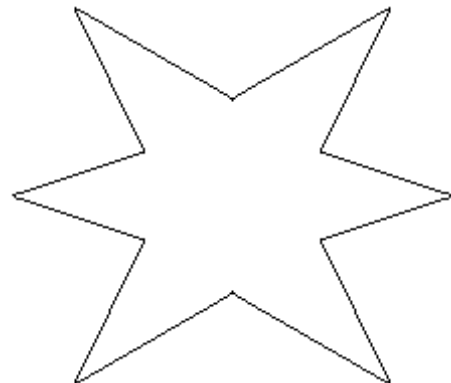
B) decagon

C) hexagon

D) heptagon

52) \_\_\_\_\_

53)



A) octagon

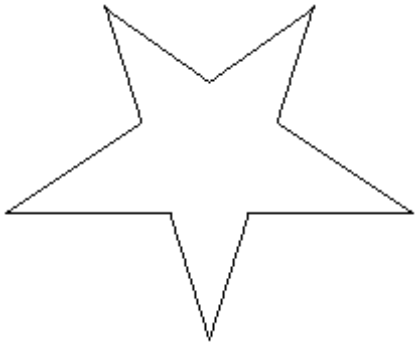
B) dodecagon

C) nonagon

D) decagon

53) \_\_\_\_\_

54)



A) dodecagon

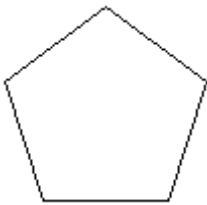
B) decagon

C) nonagon

D) octagon

54) \_\_\_\_\_

55)



A) pentagon

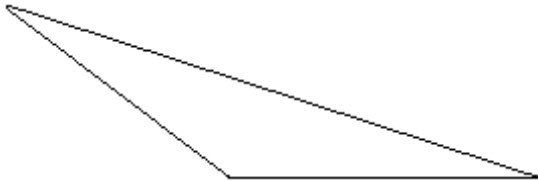
B) quadrilateral

C) heptagon

D) hexagon

55) \_\_\_\_\_

56)



A) triangle

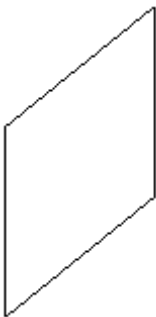
C) rhombus

B) isosceles triangle

D) quadrilateral

56) \_\_\_\_\_

57)



A) quadrilateral

B) rectangle

C) hexagon

D) pentagon

57) \_\_\_\_\_

Find the sum of the angle measures of the specified polygon.

58) A hexagon.

A)  $900^\circ$

B)  $1080^\circ$

C)  $720^\circ$

D)  $540^\circ$

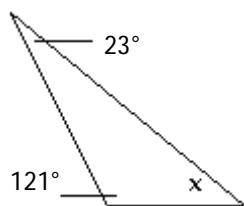
58) \_\_\_\_\_



- 59) A pentagon. 59) \_\_\_\_\_  
 A)  $540^\circ$  B)  $720^\circ$  C)  $360^\circ$  D)  $900^\circ$
- 60) A heptagon. 60) \_\_\_\_\_  
 A)  $720^\circ$  B)  $900^\circ$  C)  $1260^\circ$  D)  $1080^\circ$
- 61) A decagon. 61) \_\_\_\_\_  
 A)  $1620^\circ$  B)  $1440^\circ$  C)  $1800^\circ$  D)  $2160^\circ$
- 62) An octagon. 62) \_\_\_\_\_  
 A)  $1440^\circ$  B)  $720^\circ$  C)  $900^\circ$  D)  $1080^\circ$
- 63) A dodecagon. 63) \_\_\_\_\_  
 A)  $1440^\circ$  B)  $1800^\circ$  C)  $2160^\circ$  D)  $1620^\circ$
- 64) A 16-sided polygon. 64) \_\_\_\_\_  
 A)  $3240^\circ$  B)  $2880^\circ$  C)  $2700^\circ$  D)  $2520^\circ$
- 65) A 25-sided polygon. 65) \_\_\_\_\_  
 A)  $4500^\circ$  B)  $4860^\circ$  C)  $4320^\circ$  D)  $4140^\circ$

Find the missing angle measure.

- 66) 66) \_\_\_\_\_



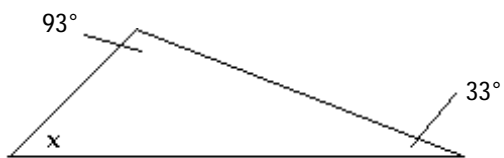
- A)  $98^\circ$  B)  $36^\circ$  C)  $41^\circ$  D)  $144^\circ$

- 67) 67) \_\_\_\_\_



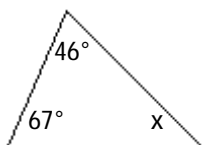
- A)  $124^\circ$  B)  $56^\circ$  C)  $154^\circ$  D)  $150^\circ$

68)

A)  $126^\circ$ B)  $87^\circ$ C)  $54^\circ$ D)  $44^\circ$ 

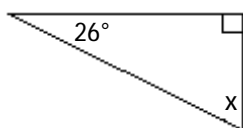
68) \_\_\_\_\_

69)

A)  $46^\circ$ B)  $113^\circ$ C)  $23^\circ$ D)  $67^\circ$ 

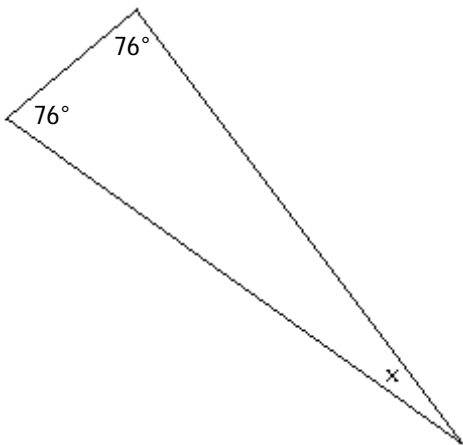
69) \_\_\_\_\_

70)

A)  $26^\circ$ B)  $116^\circ$ C)  $64^\circ$ D)  $154^\circ$ 

70) \_\_\_\_\_

71)

A)  $208^\circ$ B)  $28^\circ$ C)  $104^\circ$ D)  $38^\circ$ 

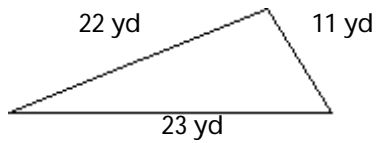
71) \_\_\_\_\_

72) In  $\triangle DEF$ , the  $m(\angle D) = 91^\circ$  and the  $m(\angle E) = 33^\circ$ . Find  $m(\angle F)$ .A)  $46^\circ$ B)  $56^\circ$ C)  $89^\circ$ D)  $124^\circ$ 

72) \_\_\_\_\_

Find the perimeter of the polygon.

73)



A) 55 yd

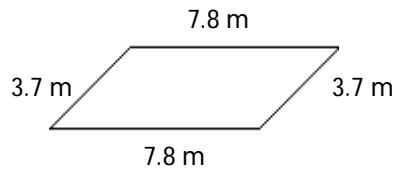
B) 56 yd

C) 126.5 yd

D) 45 yd

73) \_\_\_\_\_

74)



A) 19.3 m

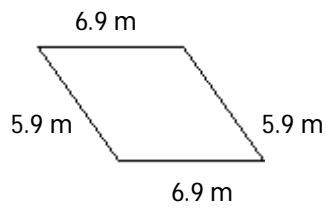
B) 11.5 m

C) 15.2 m

D) 23 m

74) \_\_\_\_\_

75)



A) 19.7 m

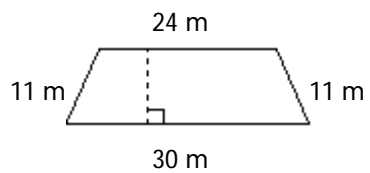
B) 12.8 m

C) 18.7 m

D) 25.6 m

75) \_\_\_\_\_

76)



A) 264 m

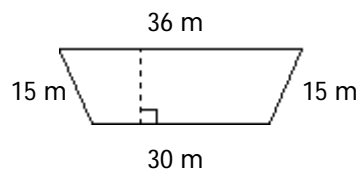
B) 76 m

C) 30 m

D) 41 m

76) \_\_\_\_\_

77)



A) 450 m

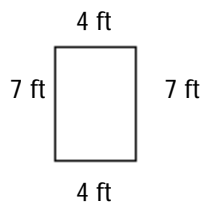
B) 36 m

C) 51 m

D) 96 m

77) \_\_\_\_\_

78)



A) 6 ft

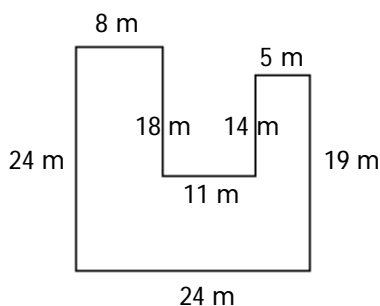
B) 16 ft

C) 22 ft

D) 11 ft

78) \_\_\_\_\_

79)



A) 105 m

B) 109 m

C) 96 m

D) 123 m

79) \_\_\_\_\_

80) A rectangle measuring 5 mi by 6 mi

A) 2 mi

B) 22 mi

C) 11 mi

D) 20 mi

80) \_\_\_\_\_

81) A square with side 3.9 ft

A) 30.42 ft

B) 15.6 ft

C) 7.8 ft

D) 25.6 ft

81) \_\_\_\_\_

82) A rectangle measuring  $5\frac{1}{3}$  mm by  $1\frac{1}{2}$  mm.A)  $13\frac{2}{3}$  mm

B) 19 mm

C) 8 mm

D)  $6\frac{5}{6}$  mm

82) \_\_\_\_\_

Solve the problem.

83) A small farm field is a square measuring 280 ft on a side. What is the perimeter of the field? If you double the length of each side of the field, what is the new perimeter?

A) 560 ft, 1120 ft

B) 280 ft, 1120 ft

C) 1120 ft, 2240 ft

D) 560 ft, 2240 ft

83) \_\_\_\_\_

84) What will it cost to buy ceiling molding to go around a rectangular room with length 16 ft and width 9 ft? The molding costs \$1.53 per linear foot.

A) \$38.25

B) \$27.54

C) \$76.50

D) \$48.96

84) \_\_\_\_\_

85) A pest control company sprays insecticide around the perimeter of a 370 ft by 200 ft building. If the spray costs \$0.10 per foot, how much did the job cost to the nearest dollar?

A) \$617

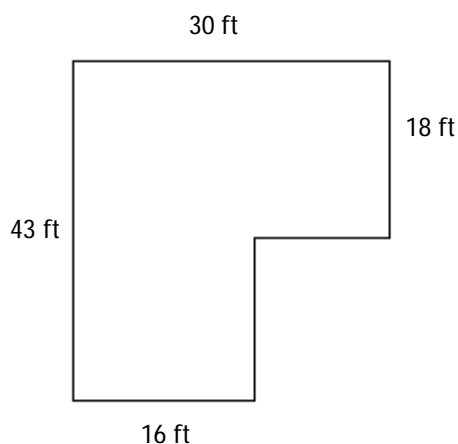
B) \$57

C) \$114

D) \$7400

85) \_\_\_\_\_

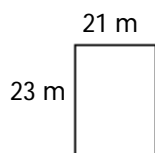
- 86) Mel plans to fence his yard for his new puppy. The yard is a 29 ft by 92 ft rectangle. Fencing costs \$12 per 10 ft section. What is the cost of the fence not including unused fencing? 86) \_\_\_\_\_  
 A) \$69.60 B) \$580.80 C) \$145.20 D) \$290.40
- 87) Tom is going to build a fence around his garden which is a rectangle measuring 8 m by 16 m. He will first put in posts which will be 4 m apart. If the posts cost \$3.40 each, what will be the total cost for all the posts? 87) \_\_\_\_\_  
 A) \$34.00 B) \$27.20 C) \$20.40 D) \$40.80
- 88) Christmas lights need to be hung around an L-shaped office building. Find the total length of the Christmas lights needed to hang them around the entire building. 88) \_\_\_\_\_



- A) 146 ft B) 162 ft C) 132 ft D) 107 ft

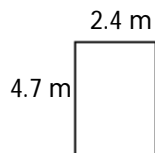
Find the area.

- 89) 89) \_\_\_\_\_



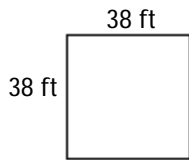
- A)  $966 \text{ m}^2$  B)  $88 \text{ m}^2$  C)  $44 \text{ m}^2$  D)  $483 \text{ m}^2$

- 90) 90) \_\_\_\_\_



- A)  $7.1 \text{ m}^2$  B)  $22.56 \text{ m}^2$  C)  $14.2 \text{ m}^2$  D)  $11.28 \text{ m}^2$

91)



A)  $1444 \text{ ft}^2$

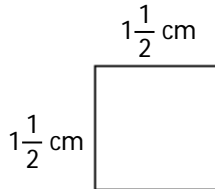
B)  $2888 \text{ ft}^2$

C)  $76 \text{ ft}^2$

D)  $152 \text{ ft}^2$

91) \_\_\_\_\_

92)



A)  $6 \text{ cm}^2$

B)  $1\frac{1}{4} \text{ cm}^2$

C)  $3 \text{ cm}^2$

D)  $2\frac{1}{4} \text{ cm}^2$

92) \_\_\_\_\_

93) Find the area of a rectangle measuring 1.1 yd by 13.25 yd.

A)  $14.35 \text{ yd}^2$

B)  $29.150 \text{ yd}^2$

C)  $1.21 \text{ yd}^2$

D)  $14.575 \text{ yd}^2$

93) \_\_\_\_\_

94) Find the area of a rectangle measuring  $6\frac{1}{3} \text{ mi}$  by  $10\frac{2}{3} \text{ mi}$ .

A)  $60\frac{2}{9} \text{ mi}^2$

B)  $34 \text{ mi}^2$

C)  $17 \text{ mi}^2$

D)  $67\frac{5}{9} \text{ mi}^2$

94) \_\_\_\_\_

95) Find the area of a square measuring 55 km on a side.

A)  $3025 \text{ km}^2$

B)  $220 \text{ km}^2$

C)  $6050 \text{ km}^2$

D)  $110 \text{ km}^2$

95) \_\_\_\_\_

96) Find the area of a square measuring 15.1 m on a side.

A)  $456.02 \text{ m}^2$

B)  $30.2 \text{ m}^2$

C)  $60.4 \text{ m}^2$

D)  $228.01 \text{ m}^2$

96) \_\_\_\_\_

97) Find the area of a square measuring  $6\frac{2}{3} \text{ in.}$  on a side.

A)  $13\frac{1}{3} \text{ in.}^2$

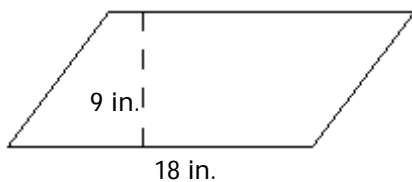
B)  $26\frac{2}{3} \text{ in.}^2$

C)  $44\frac{4}{9} \text{ in.}^2$

D)  $88\frac{8}{9} \text{ in.}^2$

97) \_\_\_\_\_

98)



A)  $27 \text{ in.}^2$

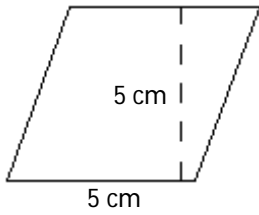
B)  $162 \text{ in.}^2$

C)  $324 \text{ in.}^2$

D)  $81 \text{ in.}^2$

98) \_\_\_\_\_

99)



A)  $25 \text{ cm}^2$

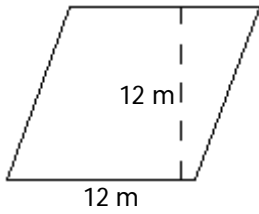
B)  $20 \text{ cm}^2$

C)  $10 \text{ cm}^2$

D)  $12.5 \text{ cm}^2$

99) \_\_\_\_\_

100)



A)  $144 \text{ m}^2$

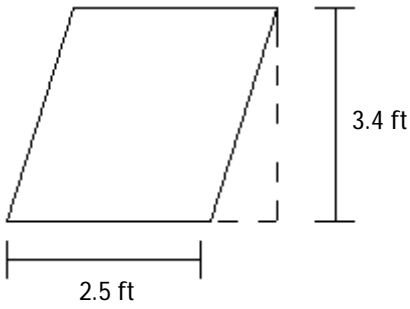
B)  $48 \text{ m}^2$

C)  $72 \text{ m}^2$

D)  $24 \text{ m}^2$

100) \_\_\_\_\_

101)



A)  $5.9 \text{ ft}^2$

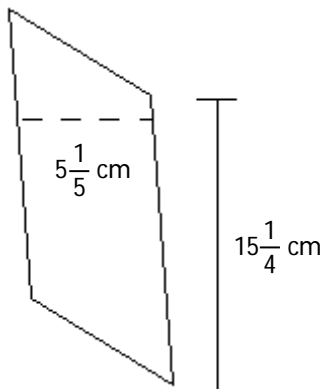
B)  $8.5 \text{ ft}^2$

C)  $11.8 \text{ ft}^2$

D)  $4.25 \text{ ft}^2$

101) \_\_\_\_\_

102)



A)  $158\frac{3}{5} \text{ cm}^2$

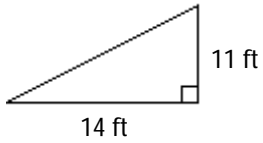
B)  $20\frac{9}{20} \text{ cm}^2$

C)  $79\frac{3}{10} \text{ cm}^2$

D)  $75\frac{1}{20} \text{ cm}^2$

102) \_\_\_\_\_

103)



A)  $77 \text{ ft}^2$

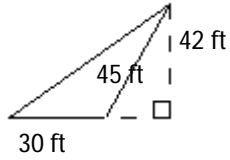
B)  $38.5 \text{ ft}^2$

C)  $60.5 \text{ ft}^2$

D)  $154 \text{ ft}^2$

103) \_\_\_\_\_

104)



A)  $630 \text{ ft}^2$

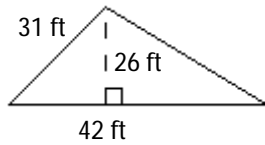
B)  $882 \text{ ft}^2$

C)  $945 \text{ ft}^2$

D)  $1260 \text{ ft}^2$

104) \_\_\_\_\_

105)



A)  $1092 \text{ ft}^2$

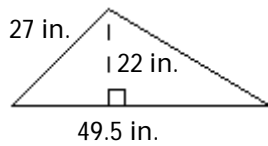
B)  $338 \text{ ft}^2$

C)  $546 \text{ ft}^2$

D)  $403 \text{ ft}^2$

105) \_\_\_\_\_

106)



A)  $1089 \text{ in.}^2$

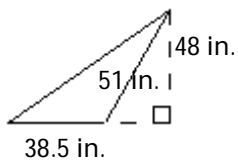
B)  $297 \text{ in.}^2$

C)  $544.5 \text{ in.}^2$

D)  $242 \text{ in.}^2$

106) \_\_\_\_\_

107)



A)  $1848 \text{ in.}^2$

B)  $1152 \text{ in.}^2$

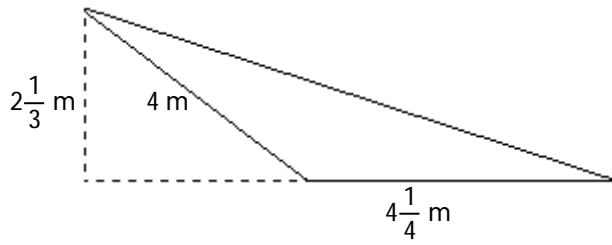
C)  $924 \text{ in.}^2$

D)  $1224 \text{ in.}^2$

107) \_\_\_\_\_



108)



A)  $4\frac{23}{24} \text{ m}^2$

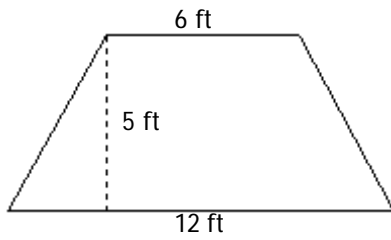
B)  $8\frac{1}{2} \text{ m}^2$

C)  $9\frac{11}{12} \text{ m}^2$

D)  $17 \text{ m}^2$

108) \_\_\_\_\_

109)



A)  $45 \text{ ft}^2$

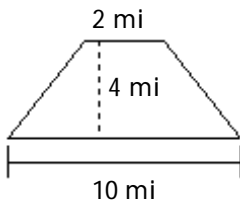
B)  $36 \text{ ft}^2$

C)  $23 \text{ ft}^2$

D)  $90 \text{ ft}^2$

109) \_\_\_\_\_

110)



A)  $16 \text{ mi}^2$

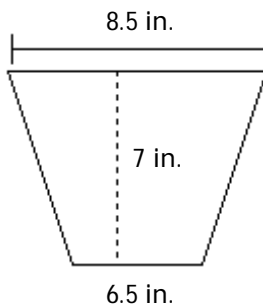
B)  $400 \text{ mi}^2$

C)  $20 \text{ mi}^2$

D)  $24 \text{ mi}^2$

110) \_\_\_\_\_

111)



A)  $22 \text{ in.}^2$

B)  $105 \text{ in.}^2$

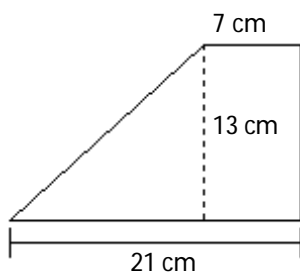
C)  $52.5 \text{ in.}^2$

D)  $45.5 \text{ in.}^2$

111) \_\_\_\_\_

112)

112) \_\_\_\_\_



A)  $41 \text{ cm}^2$

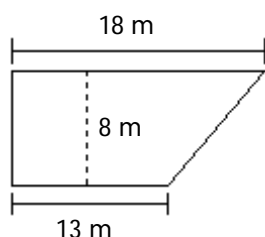
B)  $273 \text{ cm}^2$

C)  $147 \text{ cm}^2$

D)  $182 \text{ cm}^2$

113)

113) \_\_\_\_\_



A)  $248 \text{ m}^2$

B)  $936 \text{ m}^2$

C)  $124 \text{ m}^2$

D)  $226 \text{ m}^2$

Solve the problem.

114) A one-story building is 190 ft by 200 ft. If a square patio with sides 24 ft occupies the center of the building, how much area remains for offices?

114) \_\_\_\_\_

A)  $756 \text{ ft}^2$

B)  $684 \text{ ft}^2$

C)  $37,424 \text{ ft}^2$

D)  $780 \text{ ft}^2$

115) How much will it cost to carpet a rectangular room measuring 9 m by 13 m, if carpeting costs \$26.85 per square meter?

115) \_\_\_\_\_

A) \$1181.40

B) \$6282.90

C) \$3141.45

D) \$590.70

116) How much will it cost to carpet a 25 ft by 18 ft room if carpeting costs \$16.50 per square yard?

116) \_\_\_\_\_

A) \$2475.00

B) \$618.75

C) \$7425.00

D) \$825.00

117) A photograph measuring 7 in. by  $9\frac{1}{2}$  in. is put in a frame measuring  $7\frac{1}{2}$  in. by 10 in. What is the area of the border around the photo?

117) \_\_\_\_\_

A)  $9 \text{ in.}^2$

B)  $8 \text{ in.}^2$

C)  $7\frac{1}{2} \text{ in.}^2$

D)  $8\frac{1}{2} \text{ in.}^2$

118) A room measures 16 ft by 21 ft. The ceiling is 10 ft above the floor. There is one window measuring 3 ft by 7 ft. The door is 3 ft by  $6\frac{1}{2}$  ft. What is the total area of the walls and ceiling (excluding the door and window)?

118) \_\_\_\_\_

A)  $699.5 \text{ ft}^2$

B)  $295.5 \text{ ft}^2$

C)  $1035.5 \text{ ft}^2$

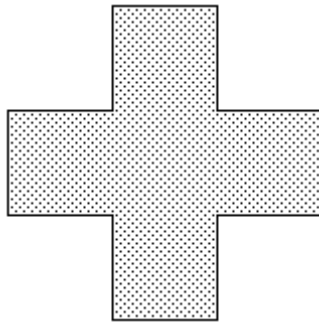
D)  $665.5 \text{ ft}^2$

- 119) A room measures 14 ft by 20 ft. The ceiling is 12 ft above the floor. The door is 3 ft by 7 ft. A gallon of paint will cover  $84.2 \text{ ft}^2$ . How many gallons of paint are needed to paint the room (including the ceiling and not including the door). Round your answer up to the next whole number.
- A) 13 gallons      B) 23 gallons      C) 10 gallons      D) 4 gallons

119) \_\_\_\_\_

Find the area of the shaded region.

120)

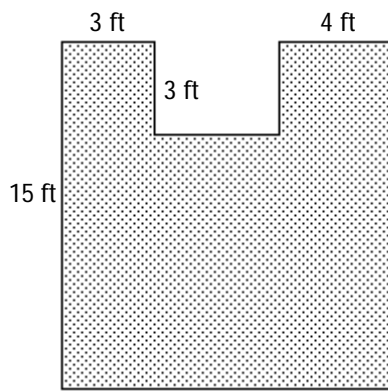


Each side 8 m

- A)  $96 \text{ m}^2$       B)  $256 \text{ m}^2$       C)  $320 \text{ m}^2$       D)  $192 \text{ m}^2$

120) \_\_\_\_\_

121)



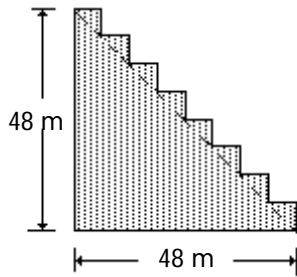
9 ft

- A)  $126 \text{ ft}^2$       B)  $123 \text{ ft}^2$       C)  $129 \text{ ft}^2$       D)  $45 \text{ ft}^2$

121) \_\_\_\_\_

122) Each small triangle has a height and a base of 6 m.

122) \_\_\_\_\_



A)  $1296 \text{ m}^2$

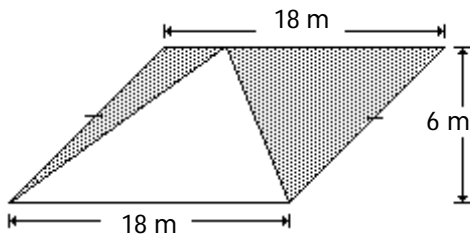
B)  $1440 \text{ m}^2$

C)  $2592 \text{ m}^2$

D) Not enough information given

123)

123) \_\_\_\_\_



A)  $108 \text{ m}^2$

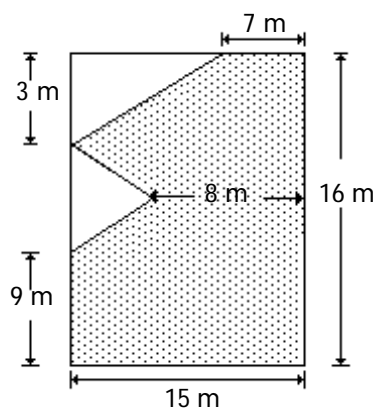
B)  $27 \text{ m}^2$

C)  $54 \text{ m}^2$

D) Not enough information given

124)

124) \_\_\_\_\_



A)  $188 \text{ m}^2$

B)  $231.5 \text{ m}^2$

C)  $214 \text{ m}^2$

D) Not enough information given

Solve the problem.

125) A rectangular piece of fabric is 20 ft by 13 ft. A triangular area with a height of 4.9 ft and a base of 7.3 ft is cut from the fabric. How much area is left over?

125) \_\_\_\_\_

A)  $307.45 \text{ ft}^2$

B)  $242.115 \text{ ft}^2$

C)  $448.46 \text{ ft}^2$

D)  $224.23 \text{ ft}^2$

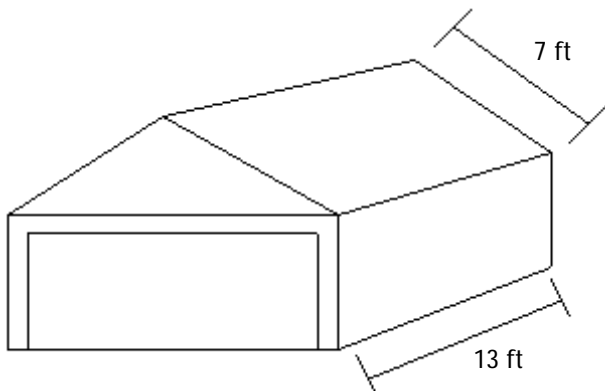
126) A yard in the shape of a square measures 20 ft on each side. A triangular area with a height of 4 ft and a base of 10 ft is dug up for a flower bed. How much yard area is left over? 126) \_\_\_\_\_

- A)  $180 \text{ ft}^2$       B)  $380 \text{ ft}^2$       C)  $360 \text{ ft}^2$       D)  $420 \text{ ft}^2$

127) A rectangular sheet of paper is 50 in. by 36 in. An area in the shape of a parallelogram with a height of 13 in. and a base of 26 in. is cut from the paper. How much area is left over? 127) \_\_\_\_\_

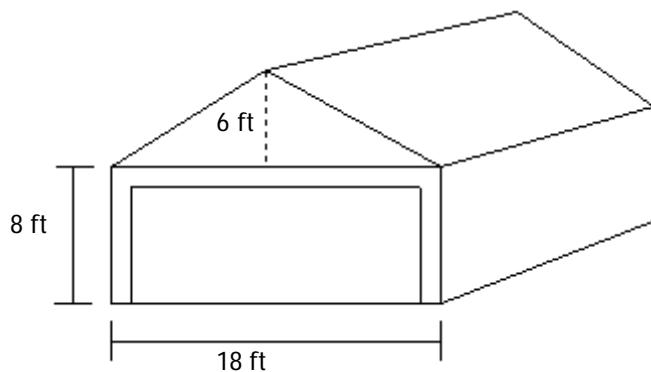
- A)  $552 \text{ in.}^2$       B)  $2138 \text{ in.}^2$       C)  $1462 \text{ in.}^2$       D)  $1631 \text{ in.}^2$

128) Find the total area of the roof of the garage. 128) \_\_\_\_\_



- A)  $40 \text{ ft}^2$       B)  $182 \text{ ft}^2$       C)  $273 \text{ ft}^2$       D)  $91 \text{ ft}^2$

129) Find the total area of the ends of the garage. 129) \_\_\_\_\_

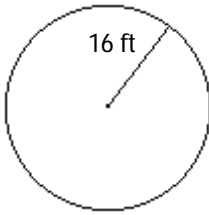


- A)  $198 \text{ ft}^2$       B)  $504 \text{ ft}^2$       C)  $336 \text{ ft}^2$       D)  $396 \text{ ft}^2$

Find the radius or diameter as requested.

130) Find the diameter.

130) \_\_\_\_\_



A) 8 ft

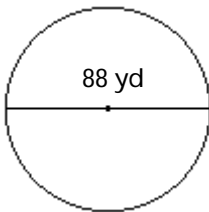
B) 803.84 ft

C) 50.24 ft

D) 32 ft

131) Find the radius.

131) \_\_\_\_\_



A) 138.16 yd

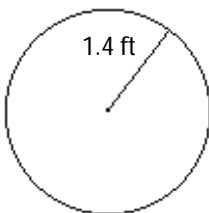
B) 44 yd

C) 22 yd

D) 6079.04 yd

132) Find the diameter.

132) \_\_\_\_\_



A) 4.396 ft

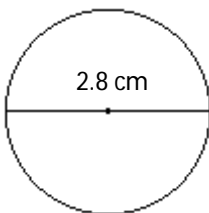
B) 0.7 ft

C) 2.8 ft

D) 6.15 ft

133) Find the radius.

133) \_\_\_\_\_



A) 4.396 cm

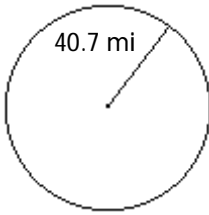
B) 6.15 cm

C) 1.4 cm

D) 0.7 cm

134) Find the diameter.

134) \_\_\_\_\_



A) 5201.38 mi

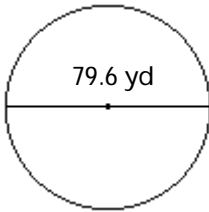
B) 81.4 mi

C) 20.35 mi

D) 127.798 mi

135) Find the radius.

135) \_\_\_\_\_



A) 19.9 yd

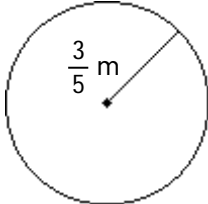
B) 4973.89 yd

C) 39.8 yd

D) 124.972 yd

136) Find the diameter.

136) \_\_\_\_\_



A)  $\frac{21}{110}$  m

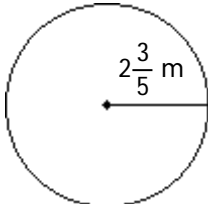
B)  $1\frac{31}{35}$  m

C)  $1\frac{1}{5}$  m

D)  $\frac{3}{10}$  m

137) Find the diameter.

137) \_\_\_\_\_



A)  $5\frac{1}{5}$  m

B)  $1\frac{3}{10}$  m

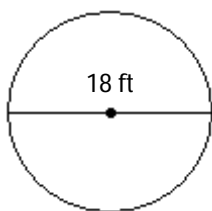
C)  $1\frac{8}{55}$  m

D)  $8\frac{6}{35}$  m

Find the circumference of the circle. Use 3.14 or  $\frac{22}{7}$  for  $\pi$  as indicated.

138) Use 3.14 for  $\pi$ .

138) \_\_\_\_\_



A) 113.04 ft

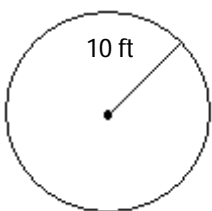
B) 56.52 ft

C) 254.34 ft

D) 28.26 ft

139) Use 3.14 for  $\pi$ .

139) \_\_\_\_\_



A) 62.80 ft

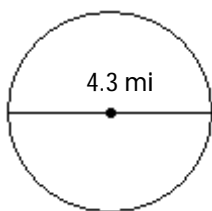
B) 314.000 ft

C) 31.400 ft

D) 12.700 ft

140) Use 3.14 for  $\pi$ .

140) \_\_\_\_\_



A) 14.515 mi

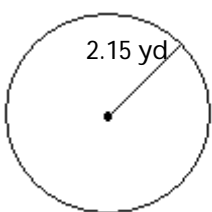
B) 6.751 mi

C) 27.004 mi

D) 13.502 mi

141) Use 3.14 for  $\pi$ .

141) \_\_\_\_\_



A) 13.502 yd

B) 58.059 yd

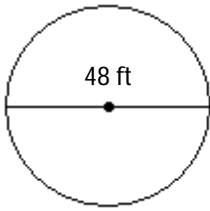
C) 6.751 yd

D) 27.004 yd



142) Use 3.14 for  $\pi$ .

142) \_\_\_\_\_



A) 1808.64 ft

B) 301.44 ft

C) 75.36 ft

D) 150.72 ft

143) Use 3.14 for  $\pi$ .

143) \_\_\_\_\_



A) 4298.66 mi

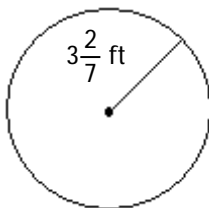
B) 58.09 mi

C) 116.18 mi

D) 232.36 mi

144) Use  $\frac{22}{7}$  for  $\pi$ .

144) \_\_\_\_\_



A)  $33\frac{319}{343}$  ft

B)  $20\frac{32}{49}$  ft

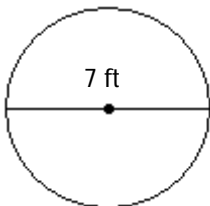
C)  $10\frac{16}{49}$  ft

D)  $5\frac{8}{49}$  ft

Find the area of the circle. Use 3.14 or  $\frac{22}{7}$  for  $\pi$  as indicated.

145) Use 3.14 for  $\pi$ .

145) \_\_\_\_\_



A)  $21.98 \text{ ft}^2$

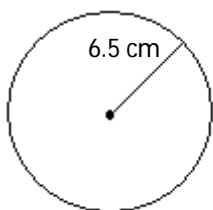
B)  $43.96 \text{ ft}^2$

C)  $153.86 \text{ ft}^2$

D)  $38.465 \text{ ft}^2$

146) Use 3.14 for  $\pi$ .

146) \_\_\_\_\_



A)  $40.82 \text{ cm}^2$

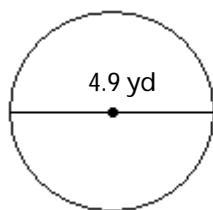
B)  $132.665 \text{ cm}^2$

C)  $81.64 \text{ cm}^2$

D)  $530.66 \text{ cm}^2$

147) Use 3.14 for  $\pi$ .

147) \_\_\_\_\_



A)  $30.772 \text{ yd}^2$

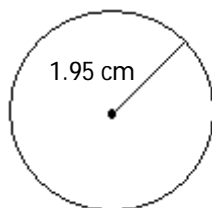
B)  $75.3914 \text{ yd}^2$

C)  $18.84785 \text{ yd}^2$

D)  $15.386 \text{ yd}^2$

148) Use 3.14 for  $\pi$ .

148) \_\_\_\_\_



A)  $47.7594 \text{ cm}^2$

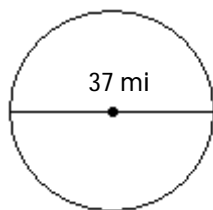
B)  $12.246 \text{ cm}^2$

C)  $11.93985 \text{ cm}^2$

D)  $24.492 \text{ cm}^2$

149) Use 3.14 for  $\pi$ .

149) \_\_\_\_\_



A)  $232.36 \text{ mi}^2$

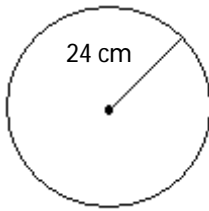
B)  $1074.665 \text{ mi}^2$

C)  $4298.66 \text{ mi}^2$

D)  $116.18 \text{ mi}^2$

150) Use 3.14 for  $\pi$ .

150) \_\_\_\_\_



A)  $150.72 \text{ cm}^2$

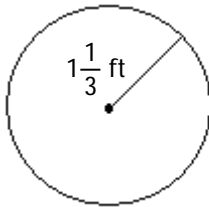
B)  $7234.56 \text{ cm}^2$

C)  $1808.64 \text{ cm}^2$

D)  $301.44 \text{ cm}^2$

151) Use  $\frac{22}{7}$  for  $\pi$ .

151) \_\_\_\_\_



A)  $17\frac{247}{441} \text{ ft}^2$

B)  $5\frac{37}{63} \text{ ft}^2$

C)  $4\frac{4}{21} \text{ ft}^2$

D)  $8\frac{8}{21} \text{ ft}^2$

Solve the problem. Use 3.14 for  $\pi$ .

152) A wicker basket has a circular rim with a diameter of 6 in. How many inches of ribbon are needed to go once around the rim?

152) \_\_\_\_\_

A) 18.84 in.

B) 36 in.

C) 37.68 in.

D) 16.84 in.

153) A semicircular driveway has a diameter of 70 ft. How long is the driveway?

153) \_\_\_\_\_

A) 816.7 ft

B) 109.9 ft

C) 107.9 ft

D) 219.8 ft

154) A circular fountain has a statue in its center, 7 m from the edge. What is the distance around the fountain?

154) \_\_\_\_\_

A) 41.96 m

B) 43.96 m

C) 21.98 m

D) 49 m

155) A figure skater must trace a figure eight on the ice that consists of two perfect circles, each with a radius of 11 ft. How far does the skater go one time around the figure eight?

155) \_\_\_\_\_

A) 69.08 ft

B) 138.16 ft

C) 32.54 ft

D) 34.54 ft

156) The outfield wall in a baseball park is in the shape of a quarter circle. If the radius of the circle is 11 ft, how long is the wall?

156) \_\_\_\_\_

A) 17.27 ft

B) 34.54 ft

C) 8.635 ft

D) 15.27 ft

157) The striking circle in field hockey is a semicircle with a radius of 15.6 yd. Find the area of the semicircle.

157) \_\_\_\_\_

A)  $3056.6016 \text{ yd}^2$

B)  $97.968 \text{ yd}^2$

C)  $382.0752 \text{ yd}^2$

D)  $764.1504 \text{ yd}^2$

158) A rubber ice-hockey puck has a 3.3 in. diameter. What is the surface area of one flat side of the puck?

158) \_\_\_\_\_

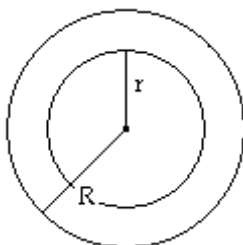
- A) 8.54865 in.<sup>2</sup>      B) 34.1946 in.<sup>2</sup>      C) 10.362 in.<sup>2</sup>      D) 4.27433 in.<sup>2</sup>

159) Find the area of the circular racetrack.  
(Round to the nearest foot.)

159) \_\_\_\_\_

$$r = 95 \text{ ft}$$

$$R = 130 \text{ ft}$$



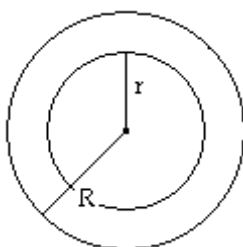
- A) 53,066 ft<sup>2</sup>      B) 28,339 ft<sup>2</sup>      C) 24,728 ft<sup>2</sup>      D) 15,386 ft<sup>2</sup>

160) Find the cost to asphalt a circular racetrack if asphalt costs \$60 per 100 ft<sup>2</sup>. (Round to the nearest dollar.)

160) \_\_\_\_\_

$$r = 75 \text{ ft}$$

$$R = 95 \text{ ft}$$

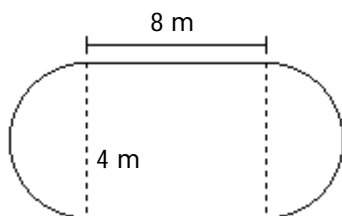


- A) \$3014      B) \$10,598      C) \$17,003      D) \$6406

Find the perimeter. Use 3.14 for  $\pi$ .

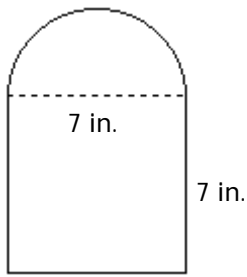
161)

161) \_\_\_\_\_



- A) 28.56 m      B) 41.12 m      C) 24.56 m      D) 36.56 m

162)



A) 49.98 in.

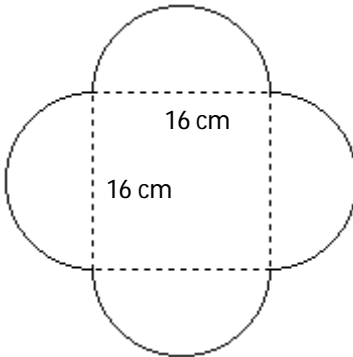
B) 31.99 in.

C) 38.99 in.

D) 42.98 in.

162) \_\_\_\_\_

163)



A) 50.24 cm

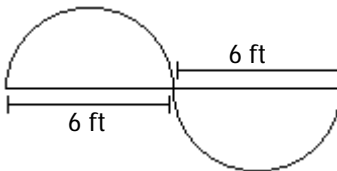
B) 100.48 cm

C) 164.48 cm

D) 132.48 cm

163) \_\_\_\_\_

164)



A) 49.68 ft

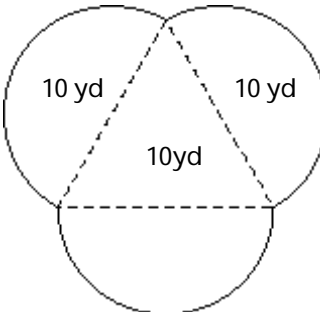
B) 30.84 ft

C) 18.84 ft

D) 37.68 ft

164) \_\_\_\_\_

165)



A) 61.4 yd

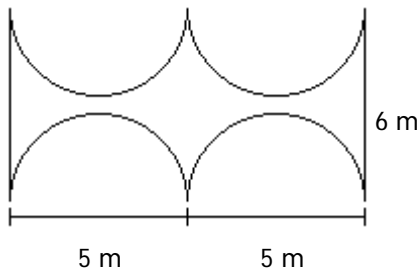
B) 47.1 yd

C) 82.8 yd

D) 31.4 yd

165) \_\_\_\_\_

166)



A) 43.4 m

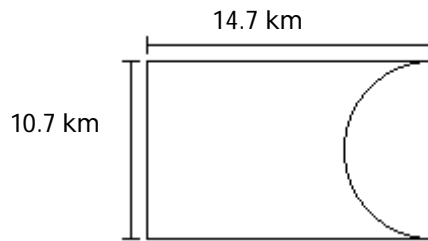
B) 27.7 m

C) 37.4 m

D) 21.7 m

166) \_\_\_\_\_

167)



A) 73.698 km

B) 140.491 km

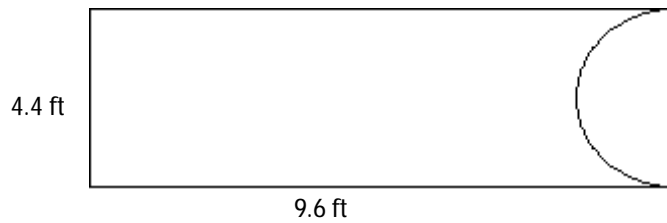
C) 169.932 km

D) 56.899 km

167) \_\_\_\_\_

Find the area of the figure. Use 3.14 for  $\pi$ .

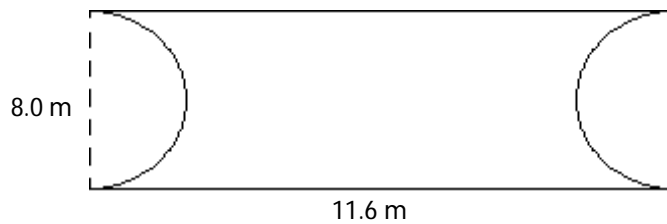
168)

A) 34.6412 ft<sup>2</sup>B) 17.3206 ft<sup>2</sup>C) 35.332 ft<sup>2</sup>

D) Not enough data

168) \_\_\_\_\_

169)

A) 35.76 m<sup>2</sup>B) 67.68 m<sup>2</sup>C) 42.56 m<sup>2</sup>

D) Not enough data

169) \_\_\_\_\_

170)

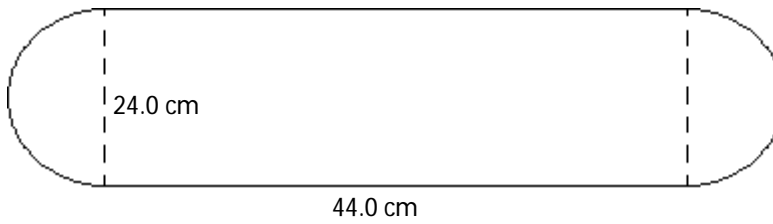


- A) 1134 ft<sup>2</sup>  
C) 977 ft<sup>2</sup>

- B) 663 ft<sup>2</sup>  
D) Not enough data

170) \_\_\_\_\_

171)

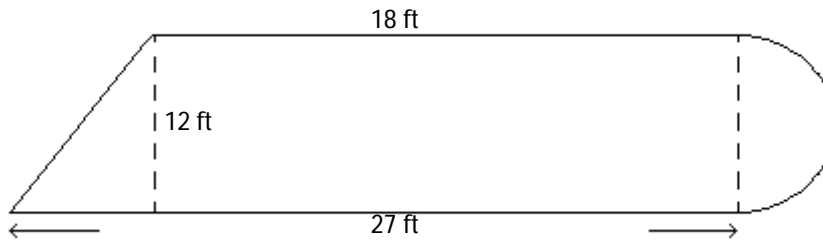


- A) 1131.36 cm<sup>2</sup>  
C) 1508.16 cm<sup>2</sup>

- B) 1282.08 cm<sup>2</sup>  
D) Not enough data

171) \_\_\_\_\_

172)

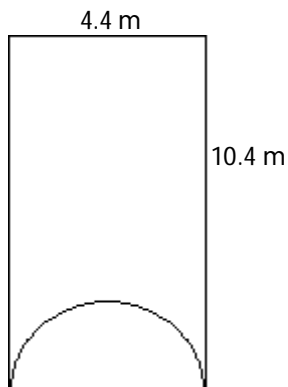


- A) 383.04 ft<sup>2</sup>  
C) 380.52 ft<sup>2</sup>

- B) 326.52 ft<sup>2</sup>  
D) Not enough data

172) \_\_\_\_\_

173)

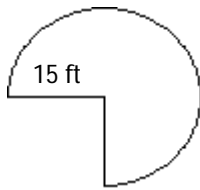


- A) 19.0806 m<sup>2</sup>  
C) 38.852 m<sup>2</sup>

- B) 38.1612 m<sup>2</sup>  
D) Not enough data

173) \_\_\_\_\_

174)

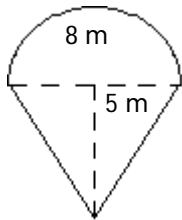


- A)  $132.4688 \text{ ft}^2$   
C)  $942 \text{ ft}^2$

- B)  $529.875 \text{ ft}^2$   
D) Not enough data

174) \_\_\_\_\_

175)

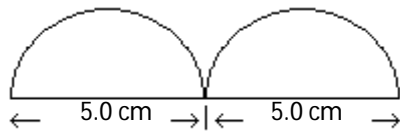


- A)  $70.24 \text{ m}^2$   
C)  $65.12 \text{ m}^2$

- B)  $45.12 \text{ m}^2$   
D) Not enough data

175) \_\_\_\_\_

176)

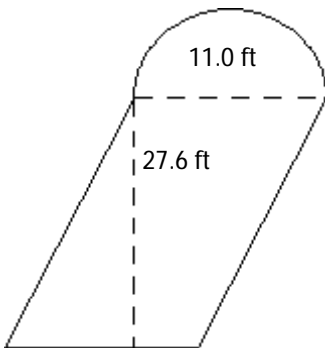


- A)  $78.5 \text{ cm}^2$   
C)  $39.25 \text{ cm}^2$

- B)  $19.625 \text{ cm}^2$   
D) Not enough data

176) \_\_\_\_\_

177)



- A)  $398.585 \text{ ft}^2$   
C)  $338.14 \text{ ft}^2$

- B)  $351.0925 \text{ ft}^2$   
D) Not enough data

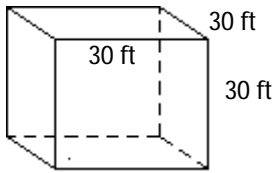
177) \_\_\_\_\_



Find the volume.

178)

178) \_\_\_\_\_



A)  $1800 \text{ ft}^3$

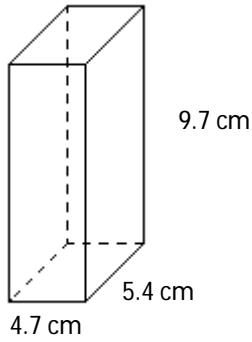
B)  $27,000 \text{ ft}^3$

C)  $90 \text{ ft}^3$

D)  $900 \text{ ft}^3$

179)

179) \_\_\_\_\_



A)  $246.186 \text{ cm}^2$

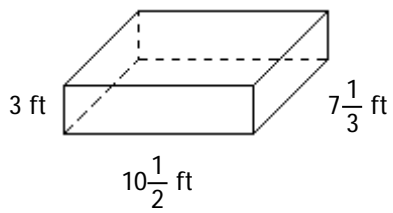
B)  $19.8 \text{ cm}^3$

C)  $246.186 \text{ cm}^3$

D)  $57.08 \text{ cm}^3$

180)

180) \_\_\_\_\_



A)  $20\frac{5}{6} \text{ ft}^3$

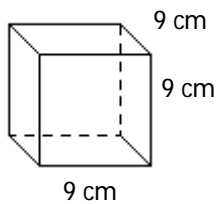
B)  $231 \text{ ft}^3$

C)  $77 \text{ ft}^3$

D)  $210\frac{1}{6} \text{ ft}^3$

181)

181) \_\_\_\_\_



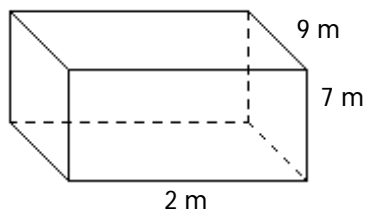
A)  $81 \text{ cm}^3$

B)  $27 \text{ cm}^3$

C)  $162 \text{ cm}^3$

D)  $729 \text{ cm}^3$

182)



A)  $126 \text{ m}^3$

B)  $567 \text{ m}^3$

C)  $36 \text{ m}^3$

D)  $98 \text{ m}^3$

182) \_\_\_\_\_

183) Find the volume of a cube measuring 4 cm on each edge.

A)  $16 \text{ cm}^3$

B)  $12 \text{ cm}^3$

C)  $64 \text{ cm}^3$

D)  $32 \text{ cm}^3$

183) \_\_\_\_\_

184) Find the volume of a cube measuring 16 cm on each edge.

A)  $4096 \text{ cm}^3$

B)  $512 \text{ cm}^3$

C)  $256 \text{ cm}^3$

D)  $48 \text{ cm}^3$

184) \_\_\_\_\_

185) Find the volume of a box  $6 \text{ ft} \times 5 \text{ ft} \times 7 \text{ ft}$ .

A)  $245 \text{ ft}^3$

B)  $252 \text{ ft}^3$

C)  $150 \text{ ft}^3$

D)  $210 \text{ ft}^3$

185) \_\_\_\_\_

186) Find the volume of a box  $15 \text{ ft} \times 19 \text{ ft} \times 22 \text{ ft}$ .

A)  $6270 \text{ ft}^3$

B)  $5415 \text{ ft}^3$

C)  $4950 \text{ ft}^3$

D)  $9196 \text{ ft}^3$

186) \_\_\_\_\_

187) Find the volume of a box  $6.1 \text{ ft} \times 3 \text{ ft} \times 5 \text{ ft}$ .

A)  $75 \text{ ft}^3$

B)  $91.5 \text{ ft}^3$

C)  $186.05 \text{ ft}^3$

D)  $54.9 \text{ ft}^3$

187) \_\_\_\_\_

188) Find the volume of a box  $6.7 \text{ yd} \times 4.5 \text{ yd} \times 2 \text{ yd}$ .

A)  $89.78 \text{ yd}^3$

B)  $135.675 \text{ yd}^3$

C)  $18 \text{ yd}^3$

D)  $60.3 \text{ yd}^3$

188) \_\_\_\_\_

Solve the problem.

189) Find the total surface area of a 4 ft by 2 ft by 5 ft box.

A)  $76 \text{ ft}^2$

B)  $38 \text{ ft}^2$

C)  $52 \text{ ft}^2$

D)  $66 \text{ ft}^2$

189) \_\_\_\_\_

190) Find the total surface area of a box 10.9 cm by 16.7 cm by 18 cm. Round to the nearest whole number.

A)  $679 \text{ cm}^2$

B)  $1057 \text{ cm}^2$

C)  $1329 \text{ cm}^2$

D)  $1358 \text{ cm}^2$

190) \_\_\_\_\_

191) Find the total surface area of a cube with an edge of 12 ft.

A)  $864 \text{ ft}^2$

B)  $432 \text{ ft}^2$

C)  $72 \text{ ft}^2$

D)  $288 \text{ ft}^2$

191) \_\_\_\_\_

192) Find the total surface area of a cube with an edge of  $6\frac{1}{2} \text{ yd}$ .

A)  $36\frac{3}{4} \text{ yd}^2$

B)  $36\frac{1}{2} \text{ yd}^2$

C)  $253\frac{1}{2} \text{ yd}^2$

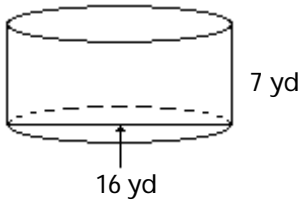
D)  $156 \text{ yd}^2$

192) \_\_\_\_\_

Find the volume of the circular cylinder. Use 3.14 or  $\frac{22}{7}$  for  $\pi$  as indicated.

193) Use 3.14 for  $\pi$ .

193) \_\_\_\_\_



A)  $175.84 \text{ yd}^3$

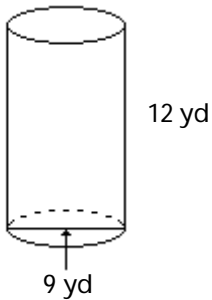
B)  $351.68 \text{ yd}^3$

C)  $1406.72 \text{ yd}^3$

D)  $2461.76 \text{ yd}^3$

194) Use 3.14 for  $\pi$ .

194) \_\_\_\_\_



A)  $339.12 \text{ yd}^3$

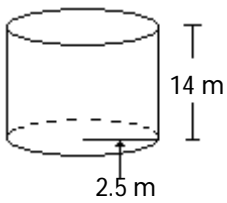
B)  $763.02 \text{ yd}^3$

C)  $4069.44 \text{ yd}^3$

D)  $169.56 \text{ yd}^3$

195) Use 3.14 for  $\pi$ .

195) \_\_\_\_\_



A)  $219.8 \text{ m}^3$

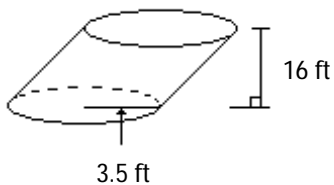
B)  $274.75 \text{ m}^3$

C)  $1099 \text{ m}^3$

D)  $109.9 \text{ m}^3$

196) Use 3.14 for  $\pi$ .

196) \_\_\_\_\_



A)  $351.68 \text{ ft}^3$

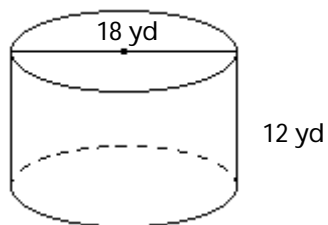
B)  $615.44 \text{ ft}^3$

C)  $2461.76 \text{ ft}^3$

D)  $175.84 \text{ ft}^3$

197) Use 3.14 for  $\pi$ .

197) \_\_\_\_\_



A)  $8138.88 \text{ yd}^3$

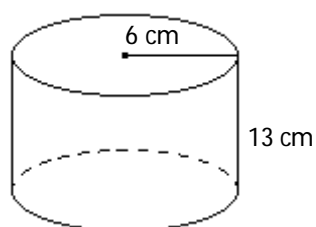
B)  $3052.08 \text{ yd}^3$

C)  $339.12 \text{ yd}^3$

D)  $678.24 \text{ yd}^3$

198) Use 3.14 for  $\pi$ .

198) \_\_\_\_\_



A)  $489.84 \text{ cm}^3$

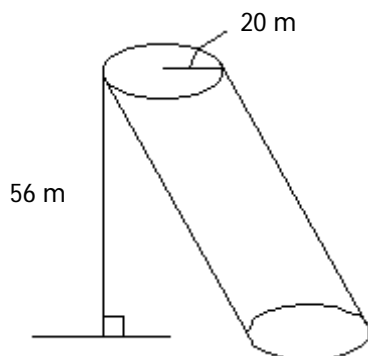
B)  $5878.08 \text{ cm}^3$

C)  $1469.52 \text{ cm}^3$

D)  $244.92 \text{ cm}^3$

199) Use  $\frac{22}{7}$  for  $\pi$ .

199) \_\_\_\_\_



A)  $70,400 \text{ m}^3$

B)  $197,120 \text{ m}^3$

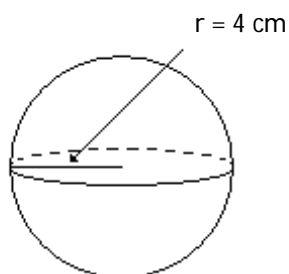
C)  $281,600 \text{ m}^3$

D)  $3520 \text{ m}^3$

Find the volume of the sphere. Use 3.14 or  $\frac{22}{7}$  for  $\pi$  as indicated.

200) Use 3.14 for  $\pi$ .

200) \_\_\_\_\_



A)  $66.987 \text{ cm}^3$

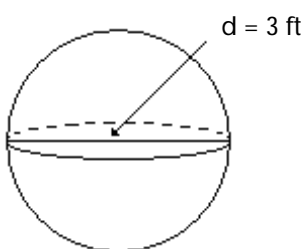
B)  $2143.573 \text{ cm}^3$

C)  $267.947 \text{ cm}^3$

D)  $150.72 \text{ cm}^3$

201) Use 3.14 for  $\pi$ .

201) \_\_\_\_\_



A)  $113.04 \text{ ft}^3$

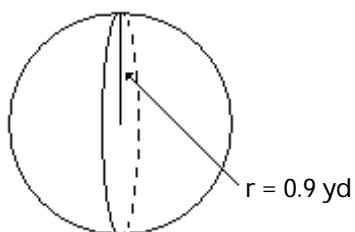
B)  $7.948 \text{ ft}^3$

C)  $14.13 \text{ ft}^3$

D)  $9.42 \text{ ft}^3$

202) Use 3.14 for  $\pi$ .

202) \_\_\_\_\_



A)  $3.391 \text{ yd}^3$

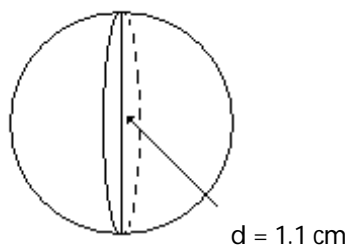
B)  $24.417 \text{ yd}^3$

C)  $3.052 \text{ yd}^3$

D)  $1.717 \text{ yd}^3$

203) Use 3.14 for  $\pi$ .

203) \_\_\_\_\_



A)  $0.392 \text{ cm}^3$

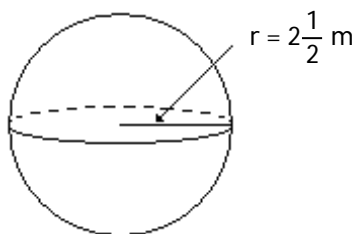
B)  $0.697 \text{ cm}^3$

C)  $1.266 \text{ cm}^3$

D)  $5.572 \text{ cm}^3$

204) Use  $\frac{22}{7}$  for  $\pi$ .

204) \_\_\_\_\_



A)  $49\frac{3}{28} \text{ m}^3$

B)  $36\frac{93}{112} \text{ m}^3$

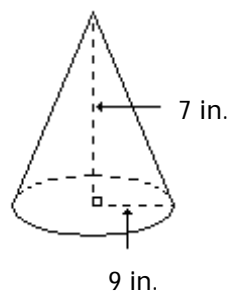
C)  $65\frac{10}{21} \text{ m}^3$

D)  $19\frac{9}{14} \text{ m}^3$

Find the volume of the circular cone. Use 3.14 or  $\frac{22}{7}$  for  $\pi$  as indicated and round as indicated.

205) Use 3.14 for  $\pi$ . Round to the nearest whole number.

205) \_\_\_\_\_



A)  $1187 \text{ in.}^3$

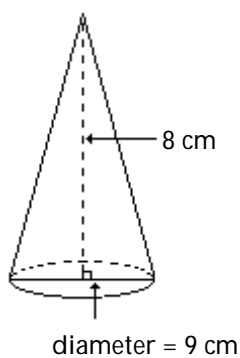
B)  $593 \text{ in.}^3$

C)  $132 \text{ in.}^3$

D)  $890 \text{ in.}^3$

206) Use 3.14 for  $\pi$ . Round to the nearest whole number.

206) \_\_\_\_\_



A)  $151 \text{ cm}^3$

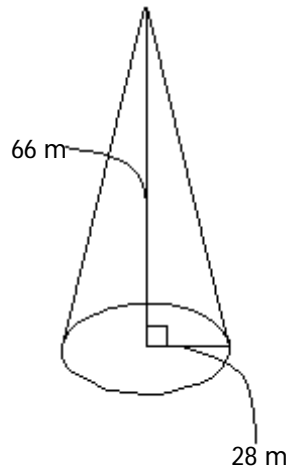
B)  $1017 \text{ cm}^3$

C)  $678 \text{ cm}^3$

D)  $170 \text{ cm}^3$

207) Use  $\frac{22}{7}$  for  $\pi$ . Round to the nearest whole number.

207) \_\_\_\_\_



A) 162,624 m<sup>3</sup>

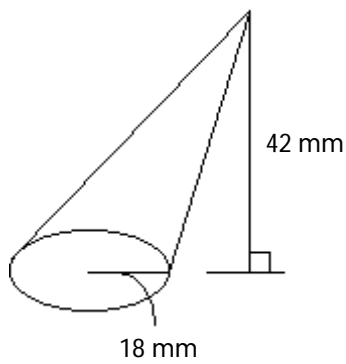
B) 127,776 m<sup>3</sup>

C) 1936 m<sup>3</sup>

D) 54,208 m<sup>3</sup>

208) Use  $\frac{22}{7}$  for  $\pi$ . Round to the nearest whole number.

208) \_\_\_\_\_



A) 44,805 mm<sup>3</sup>

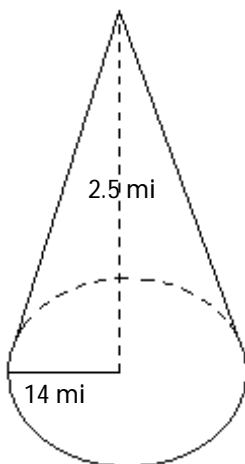
B) 792 mm<sup>3</sup>

C) 14,256 mm<sup>3</sup>

D) 42,768 mm<sup>3</sup>

209) Use 3.14 for  $\pi$ . Round to the nearest hundredth.

209) \_\_\_\_\_



A) 1538.6 mi<sup>3</sup>

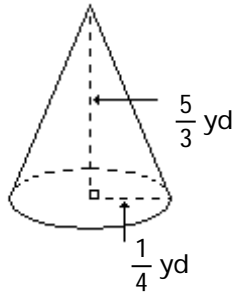
B) 36.63 mi<sup>3</sup>

C) 2051.47 mi<sup>3</sup>

D) 512.87 mi<sup>3</sup>

210) Use  $\frac{22}{7}$  for  $\pi$ . Give an exact answer.

210) \_\_\_\_\_



A)  $\frac{55}{168} \text{ yd}^3$

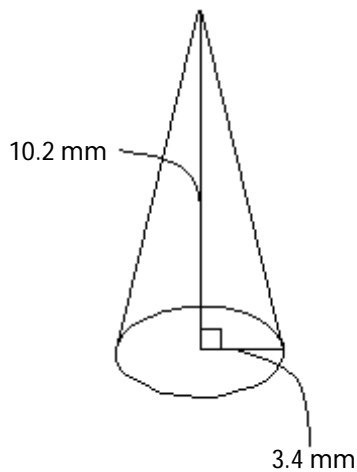
B)  $1\frac{107}{168} \text{ yd}^3$

C)  $\frac{275}{504} \text{ yd}^3$

D)  $\frac{55}{504} \text{ yd}^3$

211) Use 3.14 for  $\pi$ . Round to the nearest hundredth.

211) \_\_\_\_\_



A)  $123.53 \text{ mm}^3$

B)  $370.24 \text{ mm}^3$

C)  $123.41 \text{ mm}^3$

D)  $41.18 \text{ mm}^3$

Solve the problem. Use 3.14 for  $\pi$ . Round to the nearest tenth.

212) A cylindrical drain pipe is 5 in. across the top and about 12 in. high. How many cubic inches of water could it hold?

212) \_\_\_\_\_

A)  $942.0 \text{ in}^3$

B)  $471.0 \text{ in}^3$

C)  $235.5 \text{ in}^3$

D)  $376.8 \text{ in}^3$

213) The foundation for a cylindrical storage shed is a cylinder 18 m in diameter and 3 m high. How many cubic m of concrete are needed to build the foundation?

213) \_\_\_\_\_

A)  $339.1 \text{ m}^3$

B)  $1526.0 \text{ m}^3$

C)  $763.0 \text{ m}^3$

D)  $3052.1 \text{ m}^3$

214) An exercise ball has a diameter of 3.3 feet. Find the volume.

214) \_\_\_\_\_

A)  $75.2 \text{ ft}^3$

B)  $150.5 \text{ ft}^3$

C)  $18.8 \text{ ft}^3$

D)  $8.5 \text{ ft}^3$

215) A spherical dog toy has a radius of 6.1 cm. Find the volume.

215) \_\_\_\_\_

A)  $116.8 \text{ cm}^3$

B)  $950.3 \text{ cm}^3$

C)  $118.8 \text{ cm}^3$

D)  $7602.4 \text{ cm}^3$



- 216) A toy baseball bat comes with 3 plastic balls in a box that is a rectangular solid. The box is just big enough to hold the 3 balls. The radius of the balls is 1.4 in. What is the volume of the air in the box surrounding the balls. 216) \_\_\_\_\_
- A)  $54.4 \text{ in}^3$       B)  $26.2 \text{ in}^3$       C)  $10.5 \text{ in}^3$       D)  $31.4 \text{ in}^3$

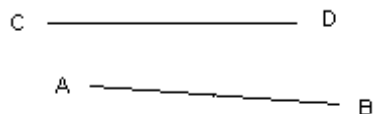
- 217) The width of a piece of paper is 8.5 in., the length is 11 in., and the thickness is 0.0035 inches. There are 2500 sheets sitting in a cabinet by the copy machine. What is the volume occupied by the paper. 217) \_\_\_\_\_
- A)  $8.2 \text{ in}^3$       B)  $818.1 \text{ in}^3$       C)  $1312.5 \text{ in}^3$       D)  $170.6 \text{ in}^3$

Find the requested angle.

- 218) Complement of  $24^\circ$  218) \_\_\_\_\_
- A)  $336^\circ$       B)  $48^\circ$       C)  $156^\circ$       D)  $66^\circ$
- 219) Supplement of  $123^\circ$  219) \_\_\_\_\_
- A)  $33^\circ$       B)  $237^\circ$       C)  $57^\circ$       D)  $246^\circ$

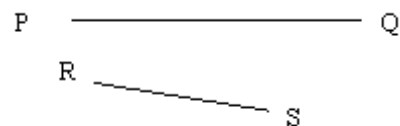
Determine if the pair of line segments or angles is congruent.

- 220) Determine if the pair of segments is congruent. Use a ruler. 220) \_\_\_\_\_



- A) Yes      B) No

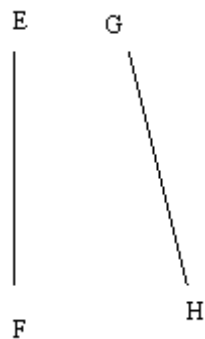
- 221) Determine if the pair of segments is congruent. Use a ruler. 221) \_\_\_\_\_



- A) Yes      B) No

222) Determine if the pair of segments is congruent. Use a ruler.

222) \_\_\_\_\_

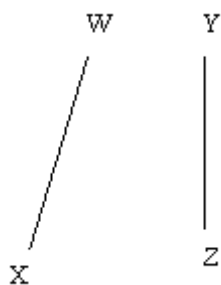


A) Yes

B) No

223) Determine if the pair of segments is congruent. Use a ruler.

223) \_\_\_\_\_

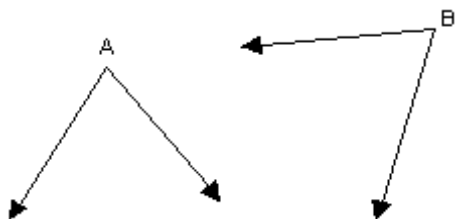


A) Yes

B) No

224) Determine if the pair of angles is congruent. Use a protractor.

224) \_\_\_\_\_



A) Yes

B) No

225) Determine if the pair of angles is congruent. Use a protractor.

225) \_\_\_\_\_

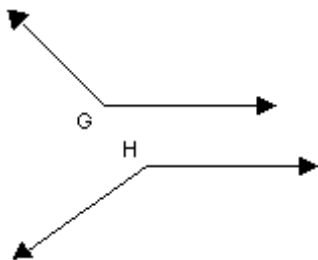


A) Yes

B) No

226) Determine if the pair of angles is congruent. Use a protractor.

226) \_\_\_\_\_

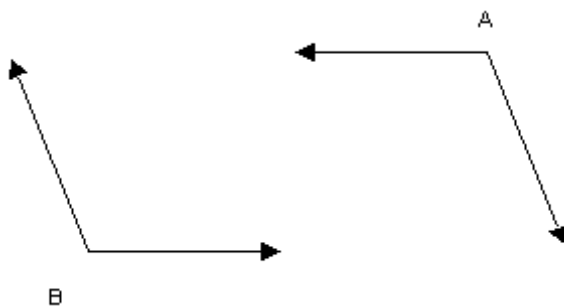


A) Yes

B) No

227) Determine if the pair of angles is congruent. Use a protractor.

227) \_\_\_\_\_



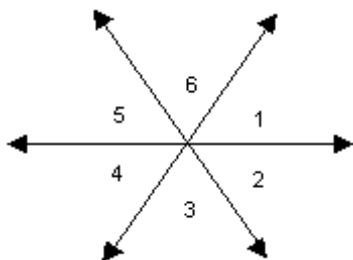
A) Yes

B) No

Use the vertical angle property to find the indicated angle measures.

228) In the figure,  $m\angle 1 = 30^\circ$  and  $m\angle 3 = 117^\circ$ . Find  $m\angle 2$ ,  $m\angle 4$ ,  $m\angle 5$ , and  $m\angle 6$ .

228) \_\_\_\_\_



A)  $m\angle 2 = 30^\circ$ ;  $m\angle 4 = 33^\circ$ ;  $m\angle 5 = 33^\circ$ ;  $m\angle 6 = 117^\circ$

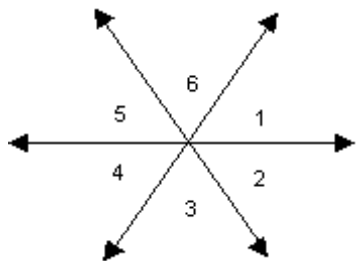
B)  $m\angle 2 = 30^\circ$ ;  $m\angle 4 = 30^\circ$ ;  $m\angle 5 = 30^\circ$ ;  $m\angle 6 = 117^\circ$

C)  $m\angle 2 = 33^\circ$ ;  $m\angle 4 = 30^\circ$ ;  $m\angle 5 = 33^\circ$ ;  $m\angle 6 = 117^\circ$

D)  $m\angle 2 = 33^\circ$ ;  $m\angle 4 = 33^\circ$ ;  $m\angle 5 = 30^\circ$ ;  $m\angle 6 = 117^\circ$

229) In the figure,  $m\angle 5 = 62^\circ$  and  $m\angle 6 = 70^\circ$ . Find  $m\angle 1$ ,  $m\angle 2$ ,  $m\angle 3$ , and  $m\angle 4$ .

229) \_\_\_\_\_

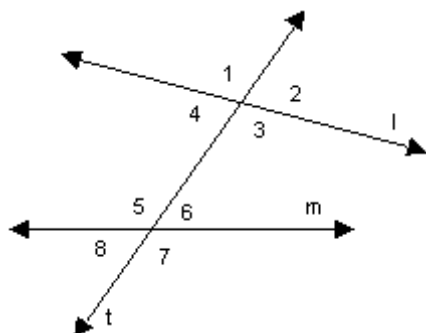


- A)  $m\angle 1 = 62^\circ$ ;  $m\angle 2 = 62^\circ$ ;  $m\angle 3 = 70^\circ$ ;  $m\angle 4 = 70^\circ$
- B)  $m\angle 1 = 62^\circ$ ;  $m\angle 2 = 48^\circ$ ;  $m\angle 3 = 70^\circ$ ;  $m\angle 4 = 48^\circ$
- C)  $m\angle 1 = 48^\circ$ ;  $m\angle 2 = 62^\circ$ ;  $m\angle 3 = 70^\circ$ ;  $m\angle 4 = 48^\circ$
- D)  $m\angle 1 = 48^\circ$ ;  $m\angle 2 = 70^\circ$ ;  $m\angle 3 = 62^\circ$ ;  $m\angle 4 = 48^\circ$

Identify the specified angles.

230) Identify all pairs of corresponding angles.

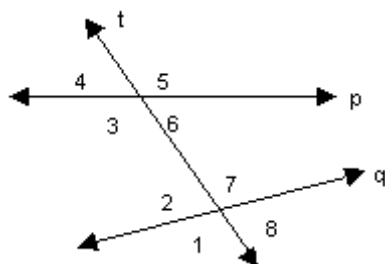
230) \_\_\_\_\_



- A)  $\angle 1$  and  $\angle 8$ ,  $\angle 2$  and  $\angle 7$ ,  $\angle 4$  and  $\angle 5$ ,  $\angle 3$  and  $\angle 6$
- B)  $\angle 1$  and  $\angle 7$ ,  $\angle 2$  and  $\angle 8$ ,  $\angle 4$  and  $\angle 6$ ,  $\angle 3$  and  $\angle 5$
- C)  $\angle 1$  and  $\angle 5$ ,  $\angle 2$  and  $\angle 6$ ,  $\angle 4$  and  $\angle 8$ ,  $\angle 3$  and  $\angle 7$
- D)  $\angle 3$ ,  $\angle 4$ ,  $\angle 5$ , and  $\angle 6$

231) Identify all interior angles.

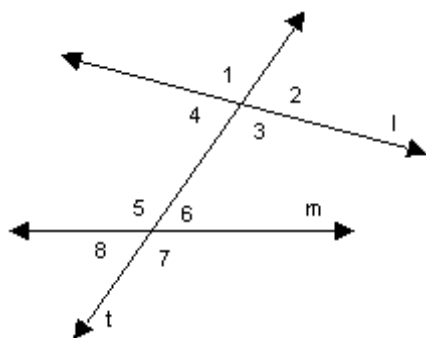
231) \_\_\_\_\_



- A)  $\angle 1$ ,  $\angle 4$ ,  $\angle 5$ , and  $\angle 8$
- B)  $\angle 1$ ,  $\angle 2$ ,  $\angle 7$ , and  $\angle 8$
- C)  $\angle 2$ ,  $\angle 3$ ,  $\angle 6$ , and  $\angle 7$
- D)  $\angle 1$ ,  $\angle 6$ ,  $\angle 3$ , and  $\angle 5$

232) Identify all pairs of alternate interior angles.

232) \_\_\_\_\_

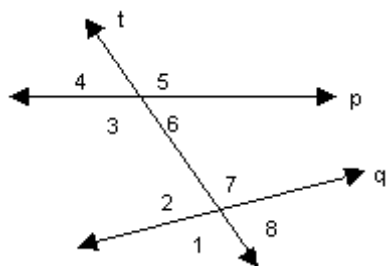


- A)  $\angle 4$  and  $\angle 5$ ,  $\angle 3$  and  $\angle 6$   
 C)  $\angle 1$  and  $\angle 7$ ,  $\angle 2$  and  $\angle 8$

- B)  $\angle 4$  and  $\angle 6$ ,  $\angle 3$  and  $\angle 5$   
 D)  $\angle 1$  and  $\angle 5$ ,  $\angle 2$  and  $\angle 6$ ,  $\angle 4$  and  $\angle 8$ ,  $\angle 3$  and  $\angle 7$

233) Identify all pairs of corresponding angles.

233) \_\_\_\_\_

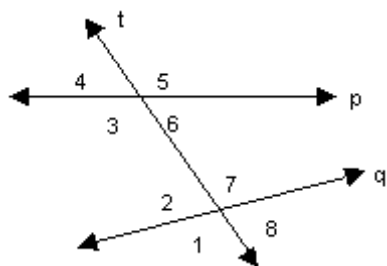


- A)  $\angle 4$  and  $\angle 1$ ,  $\angle 3$  and  $\angle 2$ ,  $\angle 5$  and  $\angle 8$ ,  $\angle 6$  and  $\angle 7$   
 C)  $\angle 4$  and  $\angle 2$ ,  $\angle 5$  and  $\angle 7$ ,  $\angle 3$  and  $\angle 1$ ,  $\angle 6$  and  $\angle 8$

- B)  $\angle 3$ ,  $\angle 2$ ,  $\angle 7$ , and  $\angle 6$   
 D)  $\angle 4$  and  $\angle 8$ ,  $\angle 5$  and  $\angle 1$ ,  $\angle 3$  and  $\angle 7$ ,  $\angle 6$  and  $\angle 2$

234) Identify all interior angles.

234) \_\_\_\_\_

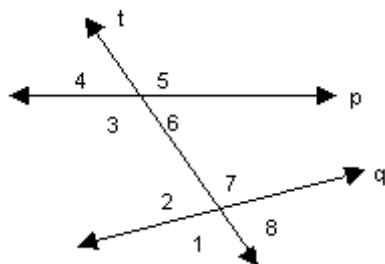


- A)  $\angle 1$ ,  $\angle 4$ ,  $\angle 5$ , and  $\angle 8$   
 C)  $\angle 1$ ,  $\angle 2$ ,  $\angle 3$ , and  $\angle 4$

- B)  $\angle 3$ ,  $\angle 6$ ,  $\angle 7$ , and  $\angle 2$   
 D)  $\angle 2$  and  $\angle 6$ ,  $\angle 3$  and  $\angle 7$

235) Identify all pairs of alternate interior angles.

235) \_\_\_\_\_

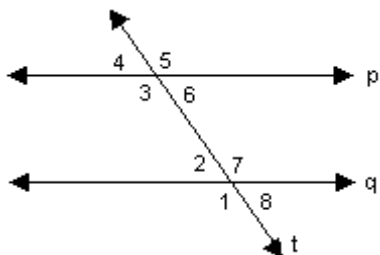


- A)  $\angle 1$  and  $\angle 5$ ,  $\angle 4$  and  $\angle 8$
- B)  $\angle 1$  and  $\angle 3$ ,  $\angle 8$  and  $\angle 6$ ,  $\angle 2$  and  $\angle 4$ ,  $\angle 7$  and  $\angle 5$
- C)  $\angle 2$  and  $\angle 6$ ,  $\angle 3$  and  $\angle 7$
- D)  $\angle 2$  and  $\angle 3$ ,  $\angle 6$  and  $\angle 7$

Use the properties of parallel lines to solve the problem.

236) If  $p \parallel q$  and  $m\angle 8 = 58^\circ$ , what are the measures of the other angles?

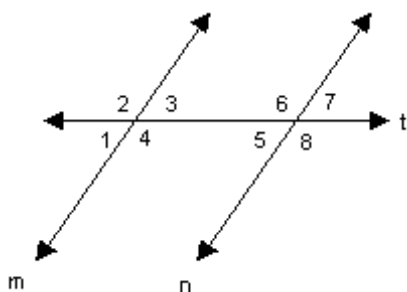
236) \_\_\_\_\_



- A)  $m\angle 2 = m\angle 4 = m\angle 6 = 58^\circ$ ,  $m\angle 1 = m\angle 3 = m\angle 5 = m\angle 7 = 132^\circ$
- B)  $m\angle 2 = m\angle 4 = m\angle 6 = 58^\circ$ ,  $m\angle 1 = m\angle 3 = m\angle 5 = m\angle 7 = 32^\circ$
- C)  $m\angle 5 = m\angle 6 = m\angle 7 = 58^\circ$ ,  $m\angle 1 = m\angle 2 = m\angle 3 = m\angle 4 = 122^\circ$
- D)  $m\angle 2 = m\angle 4 = m\angle 6 = 58^\circ$ ,  $m\angle 1 = m\angle 3 = m\angle 5 = m\angle 7 = 122^\circ$

237) If  $m \parallel n$  and  $m\angle 6 = 128^\circ$ , what are the measures of the other angles?

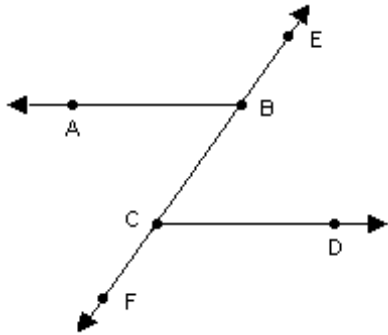
237) \_\_\_\_\_



- A)  $m\angle 2 = m\angle 4 = m\angle 8 = 128^\circ$ ,  $m\angle 1 = m\angle 3 = m\angle 5 = m\angle 7 = 52^\circ$
- B)  $m\angle 2 = m\angle 4 = m\angle 8 = 128^\circ$ ,  $m\angle 1 = m\angle 3 = m\angle 5 = m\angle 7 = 62^\circ$
- C)  $m\angle 5 = m\angle 7 = m\angle 8 = 128^\circ$ ,  $m\angle 1 = m\angle 2 = m\angle 3 = m\angle 4 = 52^\circ$
- D)  $m\angle 2 = m\angle 4 = m\angle 8 = 128^\circ$ ,  $m\angle 1 = m\angle 3 = m\angle 5 = m\angle 7 = 38^\circ$

238) In the figure,  $\overline{AB} \parallel \overline{CD}$ . Identify all pairs of congruent angles.

238) \_\_\_\_\_

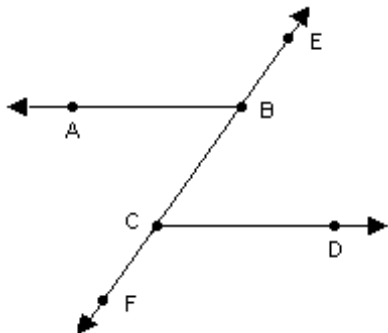


- A)  $\angle ABE$  and  $\angle ABC$ ,  $\angle FCD$  and  $\angle BCD$   
 C)  $\angle ABE$  and  $\angle FCD$ ,  $\angle ABC$  and  $\angle BCD$

- B)  $\angle ABE$  and  $\angle FCD$   
 D)  $\angle ABC$  and  $\angle FCD$ ,  $\angle ABE$  and  $\angle BCD$ ,

239) In the figure,  $\overline{AB} \parallel \overline{CD}$ .  $m\angle ABC = 57^\circ$ . Find the measures of angles  $\angle ABE$ ,  $\angle FCD$ , and  $\angle BCD$ .

239) \_\_\_\_\_

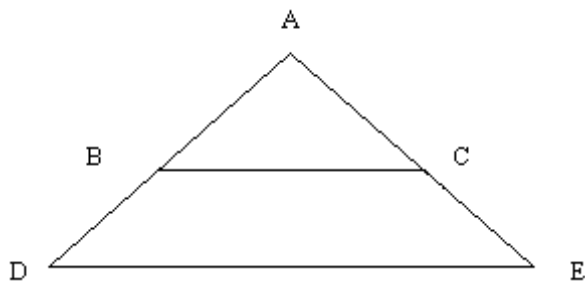


- A)  $m\angle BCD = m\angle ABE = 57^\circ$ ,  $m\angle FCD = 123^\circ$   
 C)  $m\angle BCD = m\angle ABE = m\angle FCD = 33^\circ$

- B)  $m\angle BCD = 57^\circ$ ,  $m\angle ABE = m\angle FCD = 33^\circ$   
 D)  $m\angle BCD = 57^\circ$ ,  $m\angle ABE = m\angle FCD = 123^\circ$

240) In the figure,  $\overline{BC} \parallel \overline{DE}$ . Identify any pairs of congruent angles.

240) \_\_\_\_\_

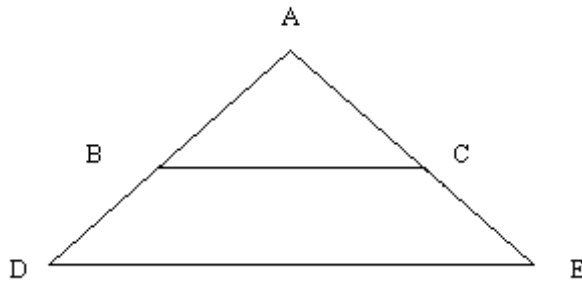


- A)  $\angle ABC$  and  $\angle ACB$ ,  $\angle DBC$  and  $\angle ECB$   
 C)  $\angle ABC$  and  $\angle ADE$ ,  $\angle ACB$  and  $\angle AED$

- B)  $\angle ABC$  and  $\angle ACB$ ,  $\angle ADE$  and  $\angle AED$   
 D)  $\angle ABC$  and  $\angle ADE$ ,  $\angle ACB$  and  $\angle AED$

241) In the figure,  $\overline{BC} \parallel \overline{DE}$ .  $m\angle ABC = 45^\circ$ . Given this information, find the measures of as many other angles as possible.

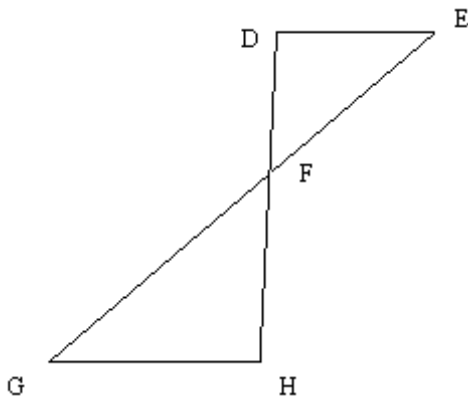
241) \_\_\_\_\_



- A)  $m\angle ADE = 45^\circ$ ,  $m\angle DBC = m\angle ECB = 135^\circ$
- B)  $m\angle ADE = m\angle ACB = m\angle AED = 45^\circ$ ,  $m\angle DBC = m\angle ECB = 135^\circ$
- C)  $m\angle ADE = 45^\circ$ ,  $m\angle DBC = 135^\circ$
- D)  $m\angle ADE = m\angle ACB = m\angle AED = 45^\circ$

242) In the figure,  $\overline{GH} \parallel \overline{DE}$ . Identify any pairs of congruent angles.

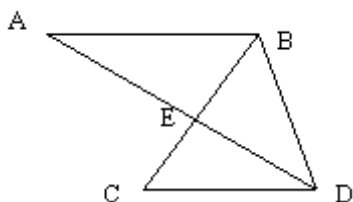
242) \_\_\_\_\_



- A)  $\angle EDF \cong \angle DFE$ ,  $\angle GFH \cong \angle HFG$ ,  $\angle DEF \cong \angle FGH$ ,  $\angle DFG \cong \angle EFH$
- B)  $\angle EDF \cong \angle HFG$ ,  $\angle DFE \cong \angle GHF$ ,  $\angle DEF \cong \angle FGH$ ,  $\angle DFG \cong \angle EFH$
- C)  $\angle EDF \cong \angle FED$ ,  $\angle DFE \cong \angle HFG$ ,  $\angle FHG \cong \angle FGH$ ,  $\angle DFG \cong \angle EFH$
- D)  $\angle EDF \cong \angle GHF$ ,  $\angle DFE \cong \angle HFG$ ,  $\angle DEF \cong \angle FGH$ ,  $\angle DFG \cong \angle EFH$



- 243) In the figure,  $\overline{AB} \parallel \overline{CD}$ .  $m\angle BAE = 37^\circ$ . Given this information, find the measures of as many other angles as possible. 243) \_\_\_\_\_



- A)  $m\angle CDE = m\angle ABE = m\angle DCE = 37^\circ$   
 B)  $m\angle CDE = 37^\circ$ ,  $m\angle ABE = m\angle DCE = 53^\circ$   
 C)  $m\angle CDE = 37^\circ$   
 D)  $m\angle CDE = 37^\circ$ ,  $m\angle ABD = 143^\circ$

The triangles are congruent. Find the angle or side in the other triangle that corresponds to the given angle or side.

- 244)  $\triangle ABC \cong \triangle RST$  244) \_\_\_\_\_

Name the corresponding part of  $\angle A$  in  $\triangle RST$

- A)  $\angle T$                       B)  $\angle C$                       C)  $\angle S$                       D)  $\angle R$

- 245)  $\triangle ABC \cong \triangle RTS$  245) \_\_\_\_\_

Name the corresponding part of  $\angle B$  in  $\triangle RTS$

- A)  $\angle S$                       B)  $\angle R$                       C)  $\angle T$                       D)  $\angle C$

- 246)  $\triangle ABC \cong \triangle TSR$  246) \_\_\_\_\_

Name the corresponding part of  $\angle C$  in  $\triangle TSR$

- A)  $\angle C$                       B)  $\angle R$                       C)  $\angle T$                       D)  $\angle S$

- 247)  $\triangle ABC \cong \triangle STR$  247) \_\_\_\_\_

Name the corresponding part of  $\angle B$  in  $\triangle STR$

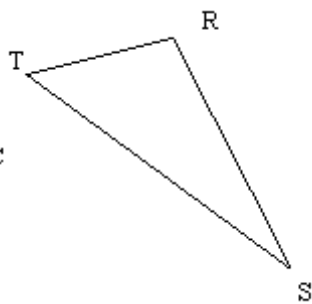
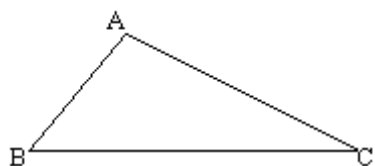
- A)  $\angle T$                       B)  $\angle S$                       C)  $\angle C$                       D)  $\angle R$

- 248)  $\triangle ABC \cong \triangle RST$  248) \_\_\_\_\_

Name the corresponding part of  $BC$  in  $\triangle RST$

- A)  $RS$                       B)  $ST$   
 C) Cannot be determined                      D)  $RT$

249) AC

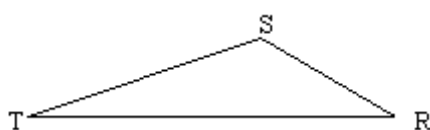
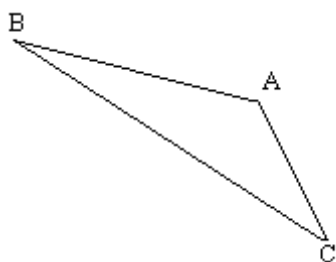


- A) Cannot be determined  
C) RT

- B) RS  
D) ST

249) \_\_\_\_\_

250) BA

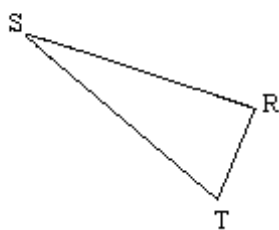
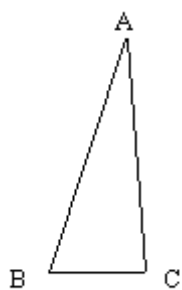


- A) Cannot be determined  
C) SR

- B) TS  
D) TR

250) \_\_\_\_\_

251) AC



- A) SR  
C) Cannot be determined

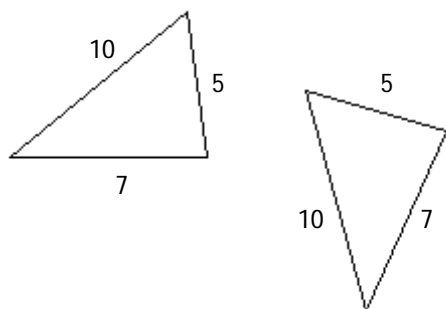
- B) RT  
D) ST

251) \_\_\_\_\_

Determine whether the pair of triangles is congruent by the SAS property.

252)

252) \_\_\_\_\_

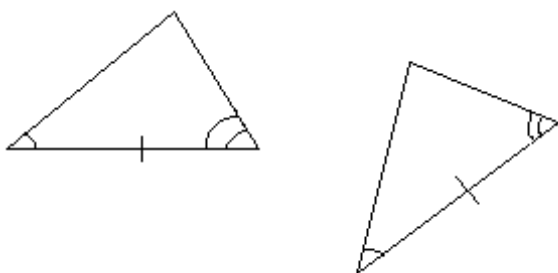


A) Yes

B) No

253)

253) \_\_\_\_\_

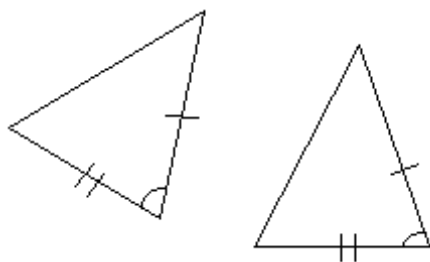


A) Yes

B) No

254)

254) \_\_\_\_\_



A) Yes

B) No

255)

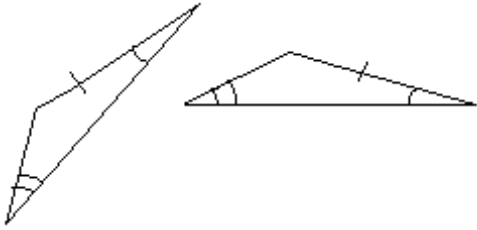
255) \_\_\_\_\_



A) Yes

B) No

256)

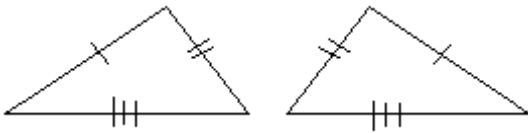


A) Yes

B) No

256) \_\_\_\_\_

257)

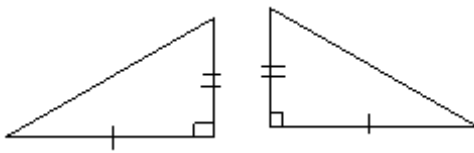


A) Yes

B) No

257) \_\_\_\_\_

258)

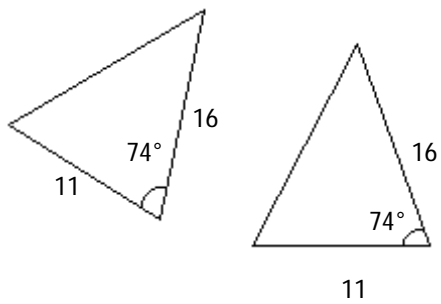


A) Yes

B) No

258) \_\_\_\_\_

259)

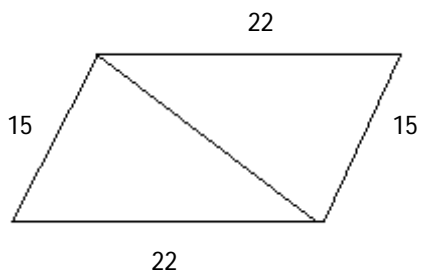


A) Yes

B) No

259) \_\_\_\_\_

260)



A) Yes

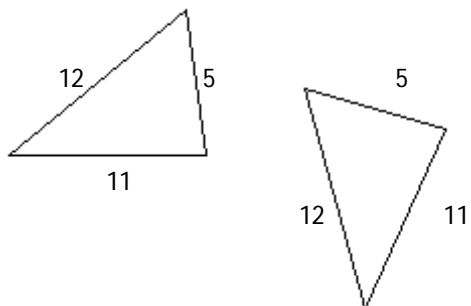
B) No

260) \_\_\_\_\_

Determine whether the pair of triangles is congruent by the SSS property.

261)

261) \_\_\_\_\_

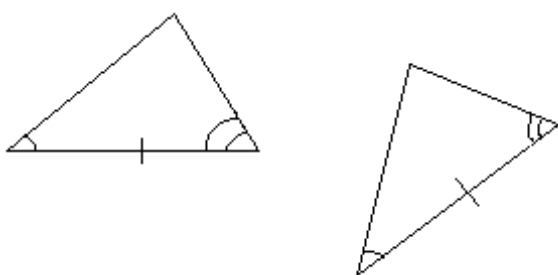


A) Yes

B) No

262)

262) \_\_\_\_\_

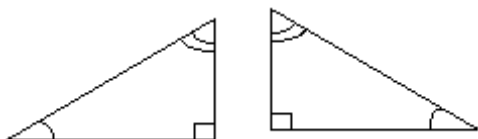


A) Yes

B) No

263)

263) \_\_\_\_\_

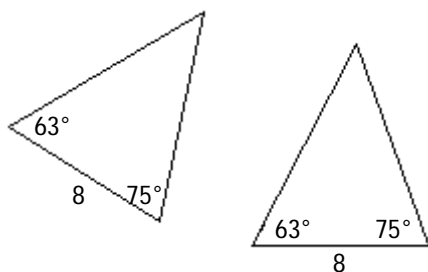


A) Yes

B) No

264)

264) \_\_\_\_\_



A) Yes

B) No

265)

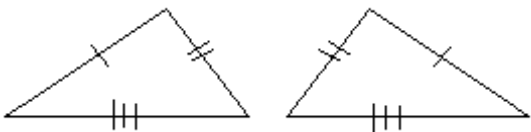


A) Yes

B) No

265) \_\_\_\_\_

266)

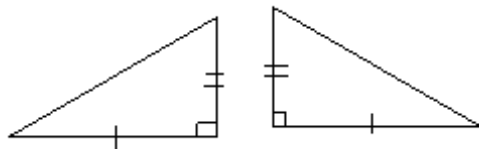


A) Yes

B) No

266) \_\_\_\_\_

267)

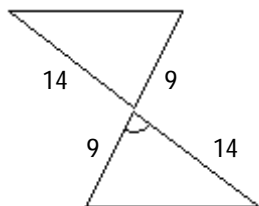


A) Yes

B) No

267) \_\_\_\_\_

268)

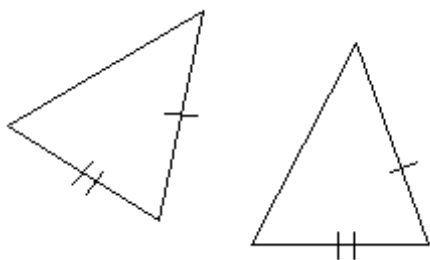


A) Yes

B) No

268) \_\_\_\_\_

269)

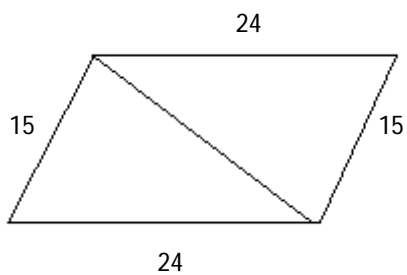


A) Yes

B) No

269) \_\_\_\_\_

270)



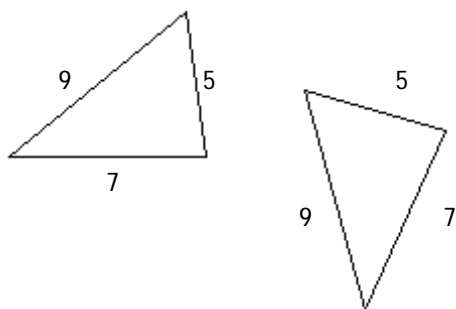
A) Yes

B) No

270) \_\_\_\_\_

Determine whether the pair of triangles is congruent by the ASA property.

271)

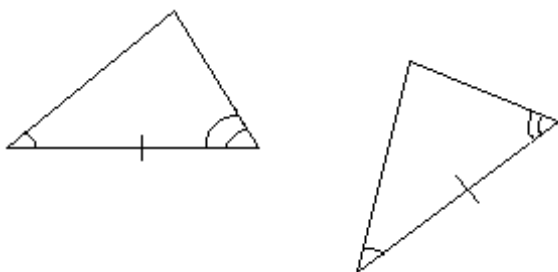


A) Yes

B) No

271) \_\_\_\_\_

272)

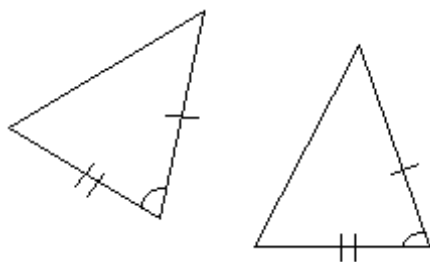


A) Yes

B) No

272) \_\_\_\_\_

273)

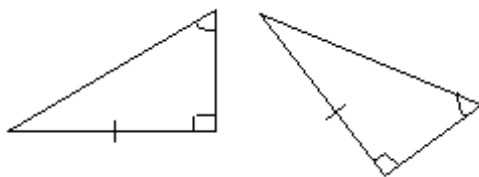


A) Yes

B) No

273) \_\_\_\_\_

274)

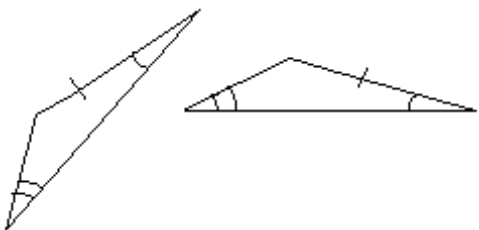


A) Yes

B) No

274) \_\_\_\_\_

275)

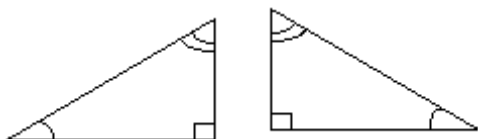


A) Yes

B) No

275) \_\_\_\_\_

276)

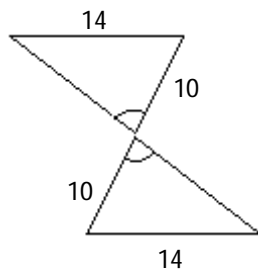


A) Yes

B) No

276) \_\_\_\_\_

277)

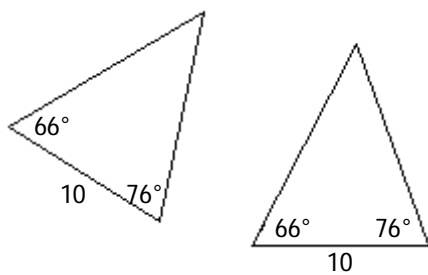


A) Yes

B) No

277) \_\_\_\_\_

278)



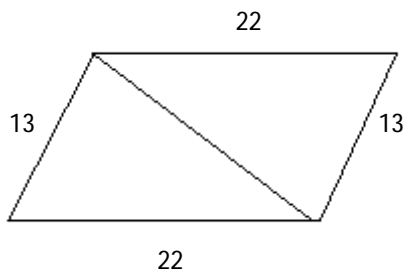
A) Yes

B) No

278) \_\_\_\_\_



279)



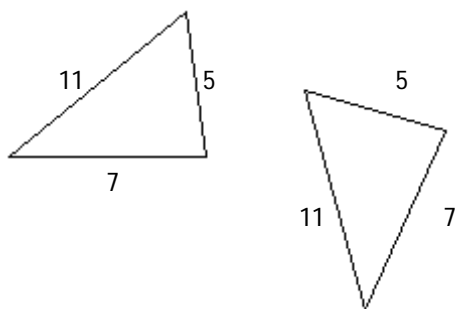
A) Yes

B) No

279) \_\_\_\_\_

Which property (if any), should be used to show that the pair of triangles is congruent?

280)



A) ASA

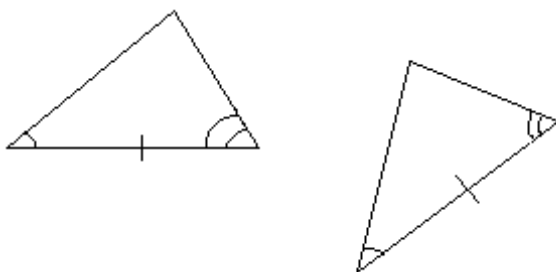
B) SSS

C) SAS

D) None

280) \_\_\_\_\_

281)



A) SAS

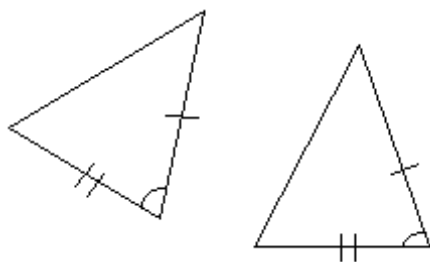
B) ASA

C) SSS

D) None

281) \_\_\_\_\_

282)



A) ASA

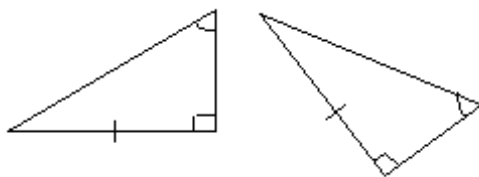
B) SAS

C) SSS

D) None

282) \_\_\_\_\_

283)



A) SAS

B) ASA

C) SSS

D) None

283) \_\_\_\_\_

284)



A) ASA

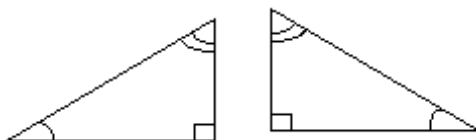
B) SSS

C) SAS

D) None

284) \_\_\_\_\_

285)



A) AAA

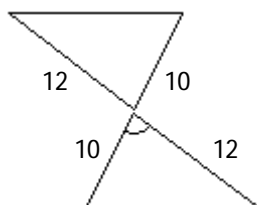
B) ASA

C) SSS

D) None

285) \_\_\_\_\_

286)



A) ASA

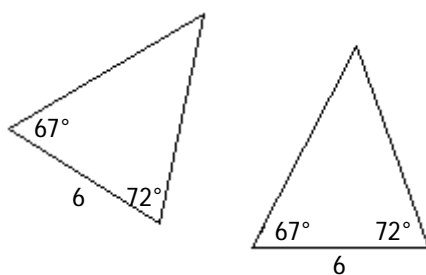
B) SSS

C) SAS

D) None

286) \_\_\_\_\_

287)



A) SSS

B) SAS

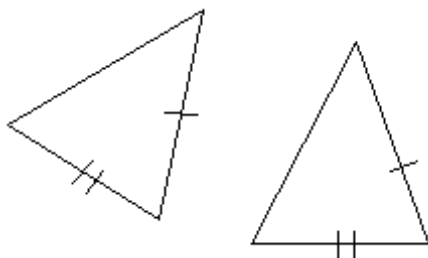
C) ASA

D) None

287) \_\_\_\_\_

288)

288) \_\_\_\_\_



A) ASA

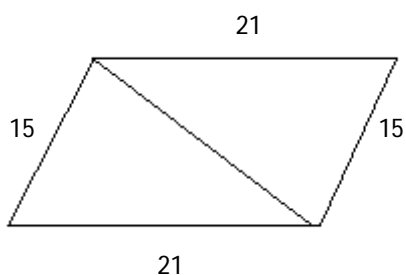
B) SAS

C) SSS

D) None

289)

289) \_\_\_\_\_



A) SSS

B) SAS

C) ASA

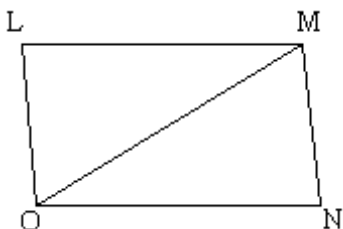
D) None

**SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.**

Explain why the indicated triangles are congruent.

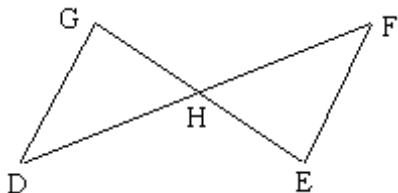
290)  $\angle LMO \cong \angle NOM$  and  $\angle LOM \cong \angle NMO$ . Explain why  $\triangle LMO \cong \triangle NOM$ .

290) \_\_\_\_\_



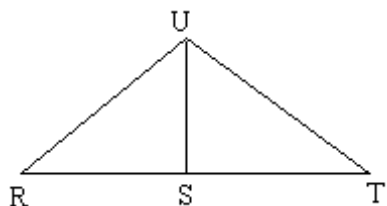
291) H is the midpoint of  $\overline{GE}$  and  $\angle DGH \cong \angle FEH$ . Explain why  $\triangle DGH \cong \triangle FEH$ .

291) \_\_\_\_\_



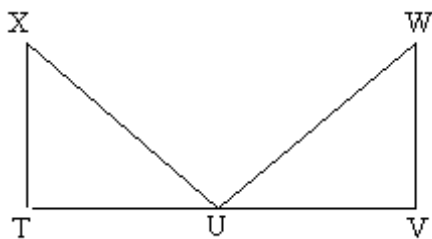
292) S is the midpoint of  $\overline{RT}$  and  $\overline{RU} \cong \overline{TU}$ . Explain why  $\triangle RUS \cong \triangle TUS$ .

292) \_\_\_\_\_



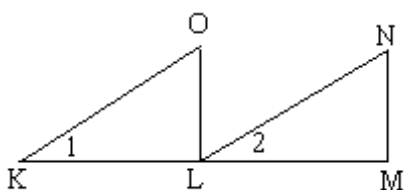
293) U is the midpoint of  $\overline{TV}$ .  $\overline{XT} \cong \overline{WV}$ .  $\overline{XT} \perp \overline{TV}$  and  $\overline{WV} \perp \overline{TV}$ . Explain why  $\triangle UTX \cong \triangle UVW$ .

293) \_\_\_\_\_



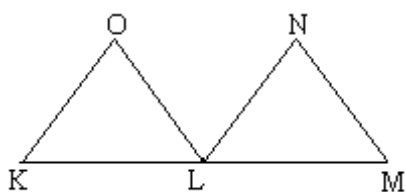
294) L is the midpoint of  $\overline{KM}$ .  $\angle 1 \cong \angle 2$ .  $\overline{OL} \perp \overline{KM}$  and  $\overline{NM} \perp \overline{KM}$ . Explain why  $\triangle KOL \cong \triangle NM$ .

294) \_\_\_\_\_



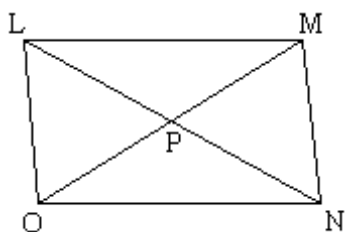
295) L is the midpoint of  $\overline{KM}$ .  $\angle KO \cong \angle LMN$ .  $\overline{OK} \cong \overline{NM}$ . Explain why  $\triangle KO \cong \triangle LMN$ .

295) \_\_\_\_\_



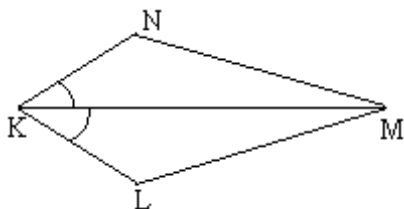
296) P is the midpoint of  $\overline{LN}$  and  $\overline{MO}$ .  $LO = MN$ . Explain why  $\triangle LPO \cong \triangle NPM$ .

296) \_\_\_\_\_



297)  $NK = LK$ .  $\angle NKM \cong \angle LKM$ . Explain how you know that  $NM = LM$ .

297) \_\_\_\_\_



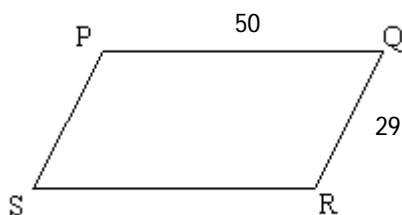
**MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.**

Find the measures of the indicated sides, angles, or diagonals of the given parallelogram.

298) Two side lengths of a parallelogram are given.

298) \_\_\_\_\_

Find the lengths of the other sides of the parallelogram.



A)  $PS = 50$ ,  $SR = 50$

B)  $PS = 29$ ,  $SR = 50$

C)  $PS = 29$ ,  $SR = 29$

D)  $PS = 50$ ,  $SR = 29$

299) One side length of a parallelogram is given. The perimeter of  $\square DEFG$  is 419.4. Find the lengths of the other sides of the parallelogram.

299) \_\_\_\_\_

Round your answers to one decimal place if necessary.



A)  $DG = 74.9$ ,  $GF = DE = 5.6$

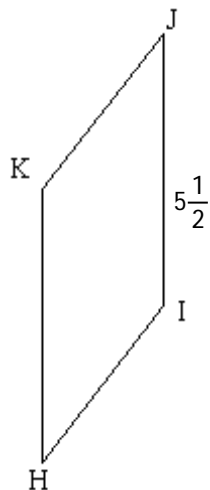
B)  $DG = 74.9$ ,  $GF = DE = 134.8$

C)  $DG = 74.9$ ,  $GF = DE = 149.8$

D)  $DG = 74.9$ ,  $GF = DE = 344.5$

300) One side length of a parallelogram is given. The perimeter of  $\square HIJK$  is 43. Find the lengths of the other sides of the parallelogram.

300) \_\_\_\_\_



A)  $HK = 5\frac{1}{2}$ ,  $HI = JK = 16$

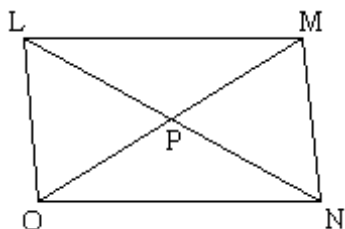
B)  $HK = 11$ ,  $HI = JK = 32$

C)  $HK = 11$ ,  $HI = JK = 16$

D)  $HK = 5\frac{1}{2}$ ,  $HI = JK = 32$

301)  $PM = 31$  and  $LP = 37$ . Find the length of each diagonal.

301) \_\_\_\_\_



A)  $LN = 37$ ,  $MO = 31$

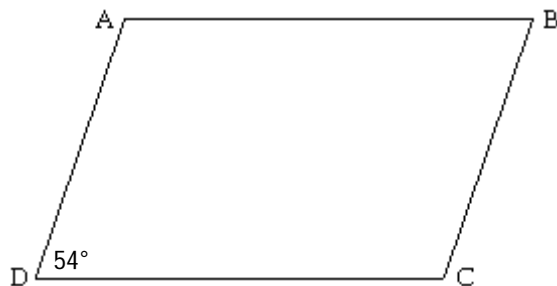
B)  $LN = 74$ ,  $MO = 62$

C)  $LN = 62$ ,  $MO = 74$

D)  $LN = MO = 68$

302) Find  $m\angle A$ ,  $m\angle B$ , and  $m\angle C$ .

302) \_\_\_\_\_



A)  $m\angle A = 126^\circ$   
 $m\angle B = 126^\circ$   
 $m\angle C = 54^\circ$

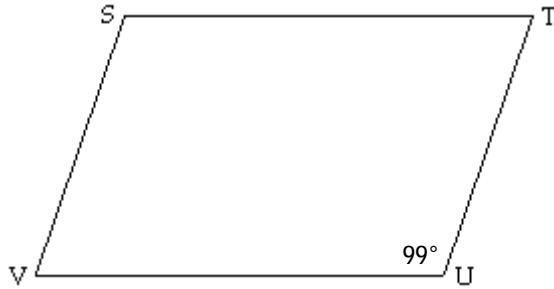
B)  $m\angle A = 126^\circ$   
 $m\angle B = 54^\circ$   
 $m\angle C = 54^\circ$

C)  $m\angle A = 126^\circ$   
 $m\angle B = 54^\circ$   
 $m\angle C = 126^\circ$

D)  $m\angle A = 54^\circ$   
 $m\angle B = 126^\circ$   
 $m\angle C = 126^\circ$

303) Find  $m\angle S$ ,  $m\angle T$ ,  $m\angle V$ .

303) \_\_\_\_\_



A)  $m\angle S = 99^\circ$   
 $m\angle T = 99^\circ$   
 $m\angle V = 81^\circ$

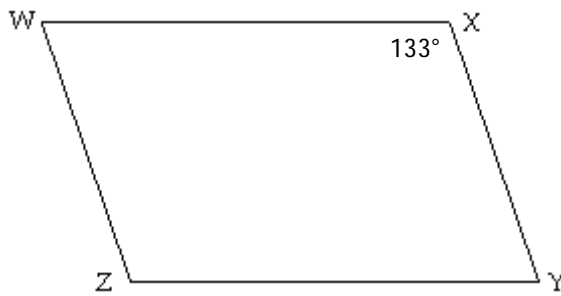
B)  $m\angle S = 81^\circ$   
 $m\angle T = 99^\circ$   
 $m\angle V = 81^\circ$

C)  $m\angle S = 81^\circ$   
 $m\angle T = 81^\circ$   
 $m\angle V = 99^\circ$

D)  $m\angle S = 99^\circ$   
 $m\angle T = 81^\circ$   
 $m\angle V = 81^\circ$

304) Find  $m\angle W$ ,  $m\angle Y$ ,  $m\angle Z$ .

304) \_\_\_\_\_



A)  $m\angle W = 47^\circ$   
 $m\angle Y = 133^\circ$   
 $m\angle Z = 47^\circ$

B)  $m\angle W = 47^\circ$   
 $m\angle Y = 47^\circ$   
 $m\angle Z = 133^\circ$

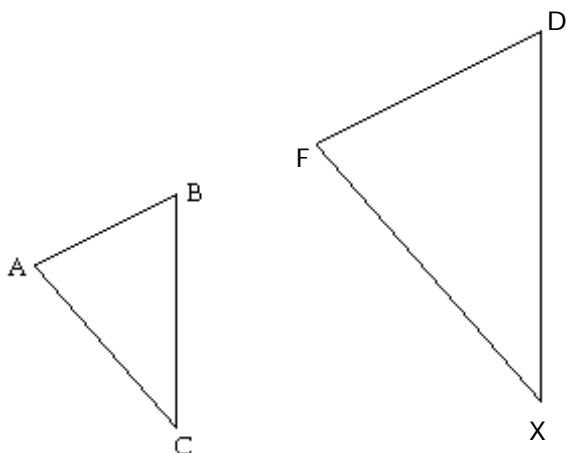
C)  $m\angle W = 133^\circ$   
 $m\angle Y = 47^\circ$   
 $m\angle Z = 133^\circ$

D)  $m\angle W = 133^\circ$   
 $m\angle Y = 47^\circ$   
 $m\angle Z = 47^\circ$

Provide an appropriate response.

305) For the pair of similar triangles, name the corresponding sides and angles.

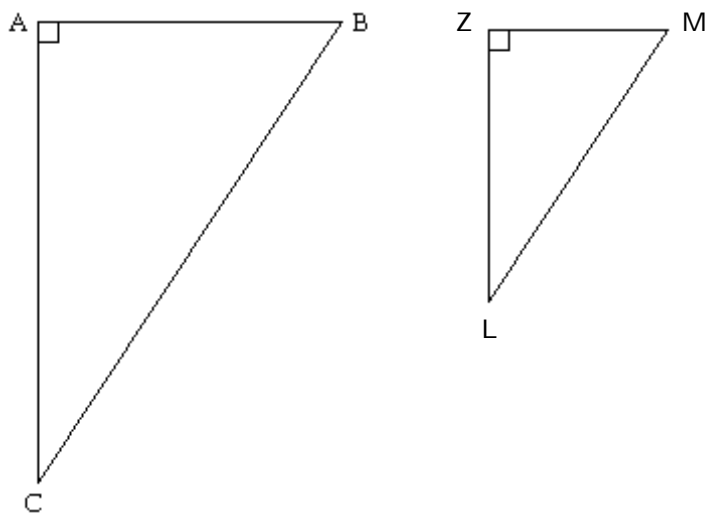
305) \_\_\_\_\_



- A)  $\angle A \leftrightarrow \angle D$ ,  $\angle B \leftrightarrow \angle F$ ,  $\angle C \leftrightarrow \angle X$ ;  $\overline{AB} \leftrightarrow \overline{FD}$ ,  $\overline{AC} \leftrightarrow \overline{DX}$ ,  $\overline{BC} \leftrightarrow \overline{FX}$   
 B)  $\angle A \leftrightarrow \angle F$ ,  $\angle B \leftrightarrow \angle D$ ,  $\angle C \leftrightarrow \angle X$ ;  $\overline{AB} \leftrightarrow \overline{FD}$ ,  $\overline{AC} \leftrightarrow \overline{FX}$ ,  $\overline{BC} \leftrightarrow \overline{DX}$   
 C)  $\angle A \leftrightarrow \angle F$ ,  $\angle B \leftrightarrow \angle X$ ,  $\angle C \leftrightarrow \angle D$ ;  $\overline{AB} \leftrightarrow \overline{FX}$ ,  $\overline{AC} \leftrightarrow \overline{FD}$ ,  $\overline{BC} \leftrightarrow \overline{DX}$   
 D)  $\angle A \leftrightarrow \angle X$ ,  $\angle B \leftrightarrow \angle D$ ,  $\angle C \leftrightarrow \angle F$ ;  $\overline{AB} \leftrightarrow \overline{DX}$ ,  $\overline{AC} \leftrightarrow \overline{FX}$ ,  $\overline{BC} \leftrightarrow \overline{FD}$

306) For the pair of similar triangles, name the corresponding sides and angles.

306) \_\_\_\_\_



- A)  $\angle A \leftrightarrow \angle Z$ ,  $\angle B \leftrightarrow \angle M$ ,  $\angle C \leftrightarrow \angle L$ ;  $\overline{AB} \leftrightarrow \overline{ZM}$ ,  $\overline{AC} \leftrightarrow \overline{ZL}$ ,  $\overline{BC} \leftrightarrow \overline{ML}$   
 B)  $\angle A \leftrightarrow \angle Z$ ,  $\angle B \leftrightarrow \angle L$ ,  $\angle C \leftrightarrow \angle M$ ;  $\overline{AB} \leftrightarrow \overline{ZL}$ ,  $\overline{AC} \leftrightarrow \overline{ZM}$ ,  $\overline{BC} \leftrightarrow \overline{ML}$   
 C)  $\angle A \leftrightarrow \angle L$ ,  $\angle B \leftrightarrow \angle M$ ,  $\angle C \leftrightarrow \angle Z$ ;  $\overline{AB} \leftrightarrow \overline{ML}$ ,  $\overline{AC} \leftrightarrow \overline{ZL}$ ,  $\overline{BC} \leftrightarrow \overline{ZM}$   
 D)  $\angle A \leftrightarrow \angle M$ ,  $\angle B \leftrightarrow \angle Z$ ,  $\angle C \leftrightarrow \angle L$ ;  $\overline{AB} \leftrightarrow \overline{ZM}$ ,  $\overline{AC} \leftrightarrow \overline{ML}$ ,  $\overline{BC} \leftrightarrow \overline{ZL}$



307) For the pair of similar triangles, name the congruent angles and proportional sides.

307) \_\_\_\_\_

$\triangle ABC \sim \triangle MNO$

- A)  $\angle A \cong \angle O, \angle B \cong \angle N, \angle C \cong \angle M; \frac{AB}{NO} = \frac{AC}{MO} = \frac{BC}{MN}$   
 B)  $\angle A \cong \angle M, \angle B \cong \angle N, \angle C \cong \angle O; \frac{AB}{MN} = \frac{AC}{MO} = \frac{BC}{NO}$   
 C)  $\angle A \cong \angle N, \angle B \cong \angle M, \angle C \cong \angle O; \frac{AB}{MN} = \frac{AC}{NO} = \frac{BC}{MO}$   
 D)  $\angle A \cong \angle M, \angle B \cong \angle O, \angle C \cong \angle N; \frac{AB}{MO} = \frac{AC}{MN} = \frac{BC}{NO}$

308) For the pair of similar triangles, name the congruent angles and proportional sides.

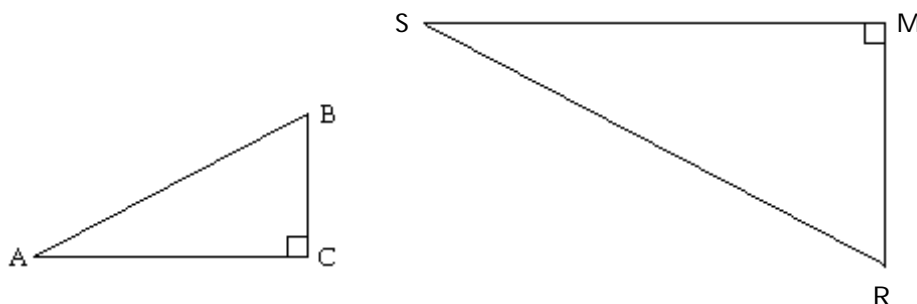
308) \_\_\_\_\_

$\triangle ABC \sim \triangle ZML$

- A)  $\angle A \cong \angle M, \angle B \cong \angle Z, \angle C \cong \angle L; \frac{AB}{ZM} = \frac{AC}{ML} = \frac{BC}{ZL}$   
 B)  $\angle A \cong \angle L, \angle B \cong \angle M, \angle C \cong \angle Z; \frac{AB}{ML} = \frac{AC}{ZL} = \frac{BC}{ZM}$   
 C)  $\angle A \cong \angle Z, \angle B \cong \angle M, \angle C \cong \angle L; \frac{AB}{ZM} = \frac{AC}{ZL} = \frac{BC}{ML}$   
 D)  $\angle A \cong \angle Z, \angle B \cong \angle L, \angle C \cong \angle M; \frac{AB}{ZL} = \frac{AC}{ZM} = \frac{BC}{ML}$

309) Name the proportional sides in these similar triangles.

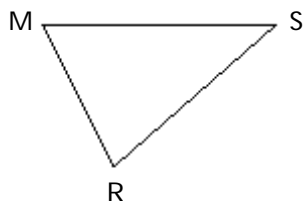
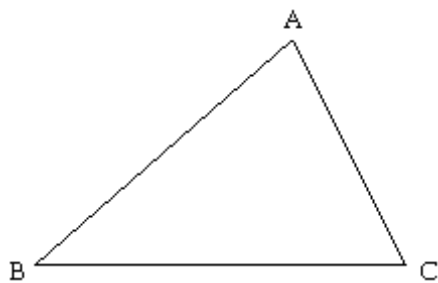
309) \_\_\_\_\_



- A)  $\frac{AB}{SR} = \frac{AC}{RM} = \frac{BC}{SM}$   
 B)  $\frac{AB}{SR} = \frac{AC}{SM} = \frac{BC}{RM}$   
 C)  $\frac{AB}{SM} = \frac{AC}{SR} = \frac{BC}{RM}$   
 D)  $\frac{AB}{SM} = \frac{AC}{RM} = \frac{BC}{SR}$

310) Name the proportional sides in these similar triangles.

310) \_\_\_\_\_



A)  $\frac{AB}{RS} = \frac{AC}{SM} = \frac{BC}{RM}$

B)  $\frac{AB}{RM} = \frac{AC}{SM} = \frac{BC}{RS}$

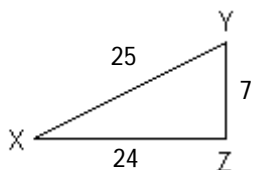
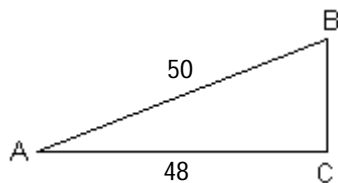
C)  $\frac{AB}{RM} = \frac{AC}{RS} = \frac{BC}{SM}$

D)  $\frac{AB}{RS} = \frac{AC}{RM} = \frac{BC}{SM}$

Find the missing length.

311) If  $\triangle ABC \sim \triangle XYZ$ , find BC.

311) \_\_\_\_\_



A) 10

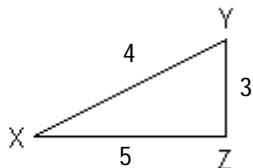
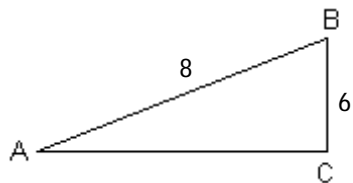
B) 21

C) 7

D) 14

312) If  $\triangle ABC \sim \triangle XYZ$ , find AC.

312) \_\_\_\_\_



A) 5

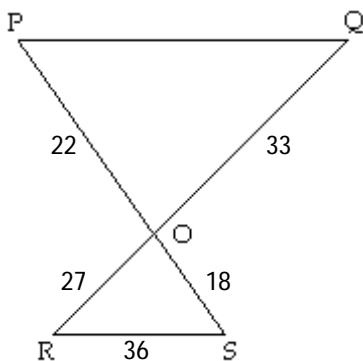
B) 15

C) 11

D) 10

313) If  $\overline{PQ} \parallel \overline{RS}$ , find PQ.

313) \_\_\_\_\_



A) 36

B) 44

C) 41

D) 55

Solve the problem.

314) How high is a tree that casts a 39-ft shadow at the same time that a 36-ft flagpole casts a 95-ft shadow? Round your answer to the nearest tenth.

314) \_\_\_\_\_

A) 102.9 ft

B) 14.8 ft

C) 101.4 ft

D) 13.3 ft

315) When a  $2\frac{1}{2}$ -ft fence post casts a 1-ft shadow, how long is the shadow cast by a 10-ft tree?

315) \_\_\_\_\_

A)  $4\frac{1}{2}$  ft

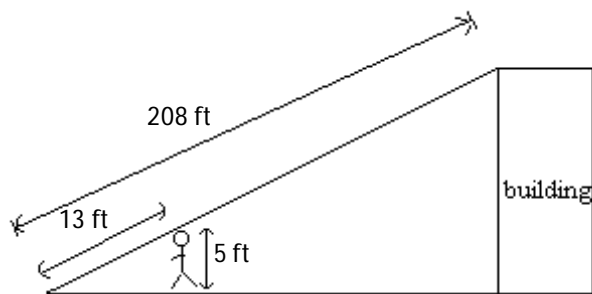
B)  $5\frac{1}{4}$  ft

C) 4 ft

D) 5 ft

316) Find the height of the building. Assume that the height of the person is 5 ft.

316) \_\_\_\_\_



A) 540.8 ft

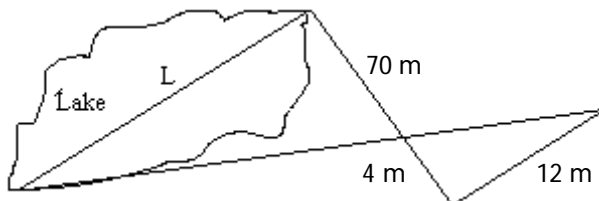
B) 112 ft

C) 41.6 ft

D) 80 ft

317) Find the length, L, of the lake. Assume that the two triangles are similar.

317) \_\_\_\_\_



A) 350 m

B) 23.3 m

C) 210 m

D) 4900 m

Answer Key

Testname: UNTITLED6

- 1) A
- 2) B
- 3) D
- 4) D
- 5) A
- 6) B
- 7) D
- 8) A
- 9) B
- 10) D
- 11) C
- 12) C
- 13) A
- 14) C
- 15) A
- 16) C
- 17) B
- 18) D
- 19) B
- 20) D
- 21) C
- 22) D
- 23) C
- 24) C
- 25) C
- 26) D
- 27) C
- 28) B
- 29) C
- 30) D
- 31) B
- 32) B
- 33) A
- 34) B
- 35) A
- 36) B
- 37) B
- 38) A
- 39) D
- 40) A
- 41) A
- 42) C

Answer Key

Testname: UNTITLED6

- 43) B
- 44) D
- 45) D
- 46) B
- 47) A
- 48) B
- 49) C
- 50) C
- 51) C
- 52) A
- 53) B
- 54) B
- 55) A
- 56) A
- 57) A
- 58) C
- 59) A
- 60) B
- 61) B
- 62) D
- 63) B
- 64) D
- 65) D
- 66) B
- 67) A
- 68) C
- 69) D
- 70) C
- 71) B
- 72) B
- 73) B
- 74) D
- 75) D
- 76) B
- 77) D
- 78) C
- 79) D
- 80) B
- 81) B
- 82) A
- 83) C
- 84) C

Answer Key

Testname: UNTITLED6

- 85) C
- 86) D
- 87) D
- 88) A
- 89) D
- 90) D
- 91) A
- 92) D
- 93) D
- 94) D
- 95) A
- 96) D
- 97) C
- 98) B
- 99) A
- 100) A
- 101) B
- 102) C
- 103) A
- 104) A
- 105) C
- 106) C
- 107) C
- 108) A
- 109) A
- 110) D
- 111) C
- 112) D
- 113) C
- 114) C
- 115) C
- 116) D
- 117) D
- 118) C
- 119) A
- 120) C
- 121) C
- 122) A
- 123) C
- 124) C
- 125) B
- 126) B

Answer Key

Testname: UNTITLED6

- 127) C
- 128) B
- 129) D
- 130) D
- 131) B
- 132) C
- 133) C
- 134) B
- 135) C
- 136) C
- 137) A
- 138) B
- 139) A
- 140) D
- 141) A
- 142) D
- 143) C
- 144) B
- 145) D
- 146) B
- 147) C
- 148) C
- 149) B
- 150) C
- 151) B
- 152) A
- 153) B
- 154) B
- 155) B
- 156) A
- 157) C
- 158) A
- 159) C
- 160) D
- 161) A
- 162) B
- 163) B
- 164) B
- 165) B
- 166) A
- 167) D
- 168) A

Answer Key

Testname: UNTITLED6

- 169) C
- 170) C
- 171) C
- 172) B
- 173) B
- 174) B
- 175) B
- 176) B
- 177) B
- 178) B
- 179) C
- 180) B
- 181) D
- 182) A
- 183) C
- 184) A
- 185) D
- 186) A
- 187) B
- 188) D
- 189) A
- 190) D
- 191) A
- 192) C
- 193) C
- 194) B
- 195) B
- 196) B
- 197) B
- 198) C
- 199) A
- 200) C
- 201) C
- 202) C
- 203) B
- 204) C
- 205) B
- 206) D
- 207) D
- 208) C
- 209) D
- 210) D



Answer Key

Testname: UNTITLED6

- 211) C
- 212) C
- 213) C
- 214) C
- 215) B
- 216) D
- 217) B
- 218) D
- 219) C
- 220) A
- 221) B
- 222) A
- 223) B
- 224) A
- 225) B
- 226) B
- 227) A
- 228) C
- 229) C
- 230) C
- 231) C
- 232) B
- 233) C
- 234) B
- 235) C
- 236) D
- 237) A
- 238) C
- 239) D
- 240) D
- 241) C
- 242) D
- 243) C
- 244) D
- 245) C
- 246) B
- 247) A
- 248) B
- 249) B
- 250) B
- 251) A
- 252) B

Answer Key

Testname: UNTITLED6

253) B

254) A

255) B

256) B

257) B

258) A

259) A

260) B

261) A

262) B

263) B

264) B

265) B

266) A

267) B

268) B

269) B

270) A

271) B

272) A

273) B

274) B

275) B

276) B

277) B

278) A

279) B

280) B

281) B

282) B

283) D

284) D

285) D

286) C

287) C

288) D

289) A

290)  $\angle LMO \cong \angle NOM$  and  $\angle LOM \cong \angle NMO$  is given and  $\overline{MO} \cong \overline{MO}$ . So two angles and an included side of  $\triangle LMO$  are congruent to the corresponding parts of  $\triangle NOM$ . So  $\triangle LMO \cong \triangle NOM$  by ASA.

291)  $\angle GHD \cong \angle EHF$  since they are vertical angles.  $\angle DGH \cong \angle FEH$  is given. Since H is the midpoint of  $\overline{GE}$  (given),  $\overline{GH} \cong \overline{HE}$ . So two angles and an included side of  $\triangle DGH$  are congruent to the corresponding parts of  $\triangle FEH$ . So  $\triangle DGH \cong \triangle FEH$  by ASA.

# Answer Key

Testname: UNTITLED6

- 292) Since S is the midpoint of  $\overline{RT}$  (given),  $\overline{RS} \cong \overline{ST}$ .  $\overline{RU} \cong \overline{TU}$  is given. Also,  $\overline{SU} \cong \overline{SU}$ . So three sides of  $\triangle RUS$  are congruent to the corresponding parts of  $\triangle TUS$ . So  $\triangle RUS \cong \triangle TUS$  by SSS.
- 293) Since U is the midpoint of  $\overline{TV}$ ,  $\overline{TU} \cong \overline{UV}$ . Since  $\overline{XT} \perp \overline{TV}$  and  $\overline{WV} \perp \overline{TV}$ ,  $\angle XTU$  and  $\angle WVU$  are both right angles and therefore  $\angle XTU \cong \angle WVU$ .  $\overline{XT} \cong \overline{WV}$  is given. So two sides and an included angle of  $\triangle JTX$  are congruent to the corresponding parts of  $\triangle JUV$ . So  $\triangle JTX \cong \triangle JUV$  by SAS.
- 294) Since L is the midpoint of  $\overline{KM}$ ,  $\overline{KL} \cong \overline{LM}$ .  $\angle 1 \cong \angle 2$  is given. Since  $\overline{OL} \perp \overline{KM}$  and  $\overline{NM} \perp \overline{KM}$ ,  $\angle OLK$  and  $\angle NML$  are both right angles and therefore  $\angle OLK \cong \angle NML$ . So two angles and an included side of  $\triangle KOL$  are congruent to the corresponding parts of  $\triangle NLM$ . So  $\triangle KOL \cong \triangle NLM$  by ASA.
- 295) Since L is the midpoint of  $\overline{KM}$ ,  $\overline{KL} \cong \overline{LM}$ .  $\angle LKO \cong \angle LMN$  and  $\overline{OK} \cong \overline{NM}$  are given. So two sides and an included angle of  $\triangle LKO$  are congruent to the corresponding parts of  $\triangle LMN$ . So  $\triangle LKO \cong \triangle LMN$  by SAS.
- 296) Since P is the midpoint of  $\overline{LN}$ ,  $\overline{LP} \cong \overline{PN}$ . Since P is the midpoint of  $\overline{MO}$ ,  $\overline{MP} \cong \overline{PO}$ . Since  $\angle O = \angle M$ ,  $\angle O \cong \angle M$ . So three sides and an included angle of  $\triangle LPO$  are congruent to the corresponding parts of  $\triangle NPM$ . So  $\triangle LPO \cong \triangle NPM$  by SSS.
- 297) Since  $NK = LK$ ,  $\overline{KN} \cong \overline{KL}$ .  $\angle NKM \cong \angle LKM$  is given.  $\overline{KM} \cong \overline{KM}$ . So two sides and an included angle of  $\triangle LKM$  are congruent to the corresponding parts of  $\triangle NKM$ . So  $\triangle LKM \cong \triangle NKM$  by SAS. Since  $\triangle LKM \cong \triangle NKM$ ,  $\overline{NM} \cong \overline{LM}$  and therefore  $NM = LM$ .
- 298) B
- 299) B
- 300) A
- 301) B
- 302) C
- 303) D
- 304) B
- 305) B
- 306) A
- 307) B
- 308) C
- 309) B
- 310) D
- 311) D
- 312) D
- 313) B
- 314) B
- 315) C
- 316) D
- 317) C