

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

Find fractional notation for the ratio. You need not simplify.

1) 8 to 5

A) $\frac{8}{5}$

B) $\frac{8}{13}$

C) $\frac{13}{8}$

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

1) _____

2) 241 to 488

A) $\frac{488}{247}$

B) $\frac{488}{241}$

C) $\frac{247}{488}$

D) $\frac{241}{488}$

2) _____

3) 0.9 to 33

A) $\frac{0.9}{33.9}$

B) $\frac{33}{0.9}$

C) $\frac{33.9}{0.9}$

D) $\frac{0.9}{33}$

3) _____

4) 2.2 to 50

A) $\frac{50}{52.2}$

B) $\frac{2.2}{50}$

C) $\frac{50}{2.2}$

D) $\frac{52.2}{50}$

4) _____

5) 2.9 to 5.2

A) $\frac{2.9}{5.2}$

B) $\frac{8.1}{5.2}$

C) $\frac{5.2}{2.9}$

D) $\frac{5.2}{8.1}$

5) _____

6) 0.8 to 0.9

A) $\frac{0.1}{0.9}$

B) $\frac{0.9}{0.1}$

C) $\frac{0.8}{0.9}$

D) $\frac{0.9}{0.8}$

6) _____

7) 77.11 to 29.43

A) $\frac{29.43}{106.54}$

B) $\frac{77.11}{29.43}$

C) $\frac{29.43}{77.11}$

D) $\frac{106.54}{29.43}$

7) _____

8) 789.1 to 218.5

A) $\frac{1007.6}{218.5}$

B) $\frac{218.5}{1007.6}$

C) $\frac{789.1}{218.5}$

D) $\frac{218.5}{789.1}$

8) _____

9) $4\frac{8}{9}$ to $2\frac{1}{8}$

9) _____

A) $\frac{4}{2}$

B) $\frac{4\frac{8}{9}}{2\frac{1}{8}}$

C) $\frac{\frac{8}{9}}{\frac{1}{8}}$

D) $\frac{2\frac{1}{8}}{4\frac{8}{9}}$

10) $63\frac{2}{3}$ to $18\frac{1}{5}$

10) _____

A) $\frac{\frac{2}{3}}{\frac{1}{5}}$

B) $\frac{63\frac{2}{3}}{18\frac{1}{5}}$

C) $\frac{63}{18}$

D) $\frac{18\frac{1}{5}}{63\frac{2}{3}}$

11) A baseball team has played 7 games so far this season. The team won 5 games. What is the ratio of games won to games played so far?

11) _____

A) $\frac{7}{5}$

B) $\frac{5}{12}$

C) $\frac{12}{5}$

D) $\frac{5}{7}$

12) A baseball team has played 9 games so far this season. The team won 8 games. Find the ratio of games lost to games won.

12) _____

A) $\frac{9}{8}$

B) $\frac{8}{9}$

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

D) $\frac{8}{1}$

13) In a three-point shooting contest, a basketball player attempted 25 shots and made 13 of them. What is the ratio of shots made to shots attempted?

13) _____

A) $\frac{25}{13}$

B) $\frac{12}{25}$

C) $\frac{13}{25}$

D) $\frac{25}{12}$

14) In a three-point shooting contest, a basketball player attempted 10 shots and made 9 of them. Find the ratio of shots made to shots missed.

14) _____

A) $\frac{10}{9}$

B) $\frac{9}{10}$

C) $\frac{9}{1}$

D) $\frac{1}{9}$

15) Of a family's \$982 weekly income, \$98 usually goes toward groceries. What is the ratio of the amount spent on groceries to weekly income?

15) _____

A) $\frac{98}{982}$

B) $\frac{884}{98}$

C) $\frac{98}{884}$

D) $\frac{982}{98}$

16) At an advertising agency that employs 300 people, 137 employees receive 2 weeks of paid vacation each year. What is the ratio of those who receive 2 weeks of paid vacation to the total number of employees?

16) _____

A) $\frac{137}{300}$

B) $\frac{300}{137}$

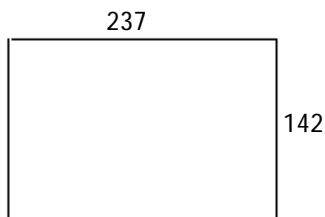
C) $\frac{300}{163}$

D) $\frac{163}{300}$

- 17) At an advertising agency that employs 282 people, 79 employees receive 3 weeks of paid vacation each year. Find the ratio of those who receive 3 weeks of paid vacation to those whose paid vacation is not 3 weeks. 17) _____

A) $\frac{79}{203}$ B) $\frac{282}{203}$ C) $\frac{203}{282}$ D) $\frac{203}{79}$

- 18) In this rectangle, find the ratios of length to width and of width to length. 18) _____



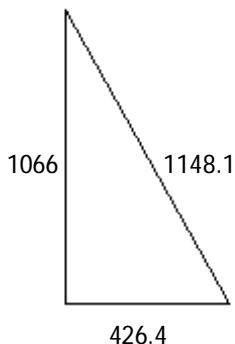
A) $\frac{142}{237}; \frac{95}{142}$ B) $\frac{237}{142}; \frac{142}{237}$ C) $\frac{142}{237}; \frac{237}{142}$ D) $\frac{95}{142}; \frac{142}{237}$

- 19) In this rectangle, find the ratios of length to width and of width to length. 19) _____



A) $\frac{197.9}{118.7}; \frac{118.7}{197.9}$ B) $\frac{118.7}{197.9}; \frac{197.9}{118.7}$ C) $\frac{118.7}{316.6}; \frac{197.9}{316.6}$ D) $\frac{197.9}{118.7}; \frac{118.7}{316.6}$

- 20) In this right triangle, find the ratios of shortest length to longest length and of longest length to shortest length. 20) _____



A) $\frac{1148.1}{1066}; \frac{1066}{1148.1}$ B) $\frac{426.4}{1148.1}; \frac{1148.1}{426.4}$
 C) $\frac{1148.1}{426.4}; \frac{426.4}{1148.1}$ D) $\frac{1066}{1148.1}; \frac{1148.1}{1066}$

Simplify the ratio.

21) 4 to 14

A) $\frac{2}{7}$

B) $\frac{2}{14}$

C) $\frac{4}{14}$

D) $\frac{4}{7}$

21) _____

22) 9 to 11

A) $\frac{1}{11}$

B) $\frac{9}{11}$

C) $\frac{27}{33}$

D) $\frac{11}{9}$

22) _____

23) 24 to 34

A) $\frac{24}{34}$

B) $\frac{12}{17}$

C) $\frac{24}{17}$

D) $\frac{12}{34}$

23) _____

24) \$9 to \$51

A) $\frac{3}{9}$

B) $\frac{51}{9}$

C) $\frac{9}{17}$

D) $\frac{3}{17}$

24) _____

25) 110 miles to 180 miles

A) $\frac{11}{18}$

B) $\frac{110}{180}$

C) 10

D) $\frac{11}{180}$

25) _____

26) 66 cents to 84 cents

A) $\frac{14}{84}$

B) $\frac{11}{84}$

C) $\frac{66}{84}$

D) $\frac{11}{14}$

26) _____

27) 0.24 to 0.24

A) $\frac{0.03}{3}$

B) $\frac{3}{24}$

C) $\frac{24}{24}$

D) 1

27) _____

Find the rate as a ratio of distance to time. Round to the nearest hundredth where appropriate.

28) 42 km, 6 hr

A) $42 \frac{\text{hr}}{\text{km}}$

B) $42 \frac{\text{km}}{\text{hr}}$

C) $7 \frac{\text{hr}}{\text{km}}$

D) $7 \frac{\text{km}}{\text{hr}}$

28) _____

29) 60 mi, 6 hr

A) $10 \frac{\text{hr}}{\text{mi}}$

B) $60 \frac{\text{hr}}{\text{mi}}$

C) $10 \frac{\text{mi}}{\text{hr}}$

D) $60 \frac{\text{mi}}{\text{hr}}$

29) _____

30) 750 yd, 50 min

A) $50 \frac{\text{yd}}{\text{min}}$

B) $65 \frac{\text{yd}}{\text{min}}$

C) $15 \frac{\text{yd}}{\text{min}}$

D) $750 \frac{\text{yd}}{\text{min}}$

30) _____

31) 200 m, 25 sec 31) _____
 A) $33 \frac{\text{m}}{\text{sec}}$ B) $25 \frac{\text{m}}{\text{sec}}$ C) $200 \frac{\text{m}}{\text{sec}}$ D) $8 \frac{\text{m}}{\text{sec}}$

32) 161.7 ft, 7.7 sec 32) _____
 A) $28.7 \frac{\text{ft}}{\text{sec}}$ B) $13.3 \frac{\text{ft}}{\text{sec}}$ C) $21 \frac{\text{ft}}{\text{sec}}$ D) $2.1 \frac{\text{ft}}{\text{sec}}$

33) 701.25 m, 3.75 hr 33) _____
 A) $190.75 \frac{\text{m}}{\text{hr}}$ B) $187 \frac{\text{hr}}{\text{m}}$ C) $190.75 \frac{\text{hr}}{\text{m}}$ D) $187 \frac{\text{m}}{\text{hr}}$

34) 41 km, 5 days 34) _____
 A) $8.2 \frac{\text{day}}{\text{km}}$ B) $8.2 \frac{\text{km}}{\text{day}}$ C) $5 \frac{\text{km}}{\text{day}}$ D) $41 \frac{\text{km}}{\text{day}}$

35) 53 m, 30 sec 35) _____
 A) $0.57 \frac{\text{m}}{\text{sec}}$ B) $5.66 \frac{\text{m}}{\text{sec}}$ C) $1.77 \frac{\text{m}}{\text{sec}}$ D) $1590.0 \frac{\text{m}}{\text{sec}}$

Find the indicated rate.

36) Tim's car will go 448.5 miles on 19.5 gallons of gasoline in city driving. What is the rate in miles per gallon? 36) _____
 A) 23.5 mpg B) $\frac{1}{23}$ mpg C) 23 mpg D) 22.5 mpg

37) The city where Lu Na lives has a population of 2,265,900 people and an area of 108.6 square miles. What is the rate of number of people per square mile (the population density)? 37) _____
 A) 21,908 people/sq mi B) 246,076,740 people/sq mi
 C) 0.0000479 people/sq mi D) 20,865 people/sq mi

38) Last basketball season, Danny scored 895 points in 80 games. What was the rate in points per game? Round to the nearest tenth if necessary. 38) _____
 A) 11.2 points/game B) 10.7 points/game
 C) 11.9 points/game D) 0.1 points/game

39) While walking, Joe's heart beats 3952 times in 40 minutes. What is the rate in beats per minute? 39) _____
 A) 102.8 beats/min B) 98.8 beats/min
 C) 0.01 beats/min D) 91.9 beats/min

40) Mara can type 580 words in $\frac{1}{3}$ hour (20 minutes). How many words per minute can she type? 40) _____
 A) 193 words/minute B) 29 words/minute
 C) 87 words/minute D) 10 words/minute

41) A machine can fill 3550 boxes of cereal in 0.5 hour. How many boxes of cereal can it fill per hour? 41) _____
 A) 5917 boxes/hour B) 1775 boxes/hour
 C) 3551 boxes/hour D) 7100 boxes/hour

42) If Alison's company charged \$255.52 for 8 hours of work, how much did they charge per hour? 42) _____
 A) \$36.50/hour B) \$39.94/hour C) \$8.00/hour D) \$31.94/hour

43) A person ran 935 meters in 2.75 minutes. What was her rate in meters per minute? 43) _____
 A) 2471.25 meters/min B) 340 meters/min
 C) 935 meters/min D) 350 meters/min

44) A tortoise traveled 0.41 miles in 2.5 hours. What was its speed? 44) _____
 A) 0.164 mi/hr B) 0.264 mi/hr
 C) 1.025 mi/hr D) 6.098 mi/hr

Determine whether the two pairs of numbers are proportional.

45) 5, 13 and 10, 26 45) _____
 A) Yes B) No

46) 4, 2 and 8, 4 46) _____
 A) No B) Yes

47) 140, 12 and 190, 21 47) _____
 A) No B) Yes

48) 0.1, 0.15 and 2, 2.4 48) _____
 A) Yes B) No

49) $3, 1\frac{3}{4}$ and $12, 7$ 49) _____
 A) Yes B) No

50) 3.5, 4.4 and 2.5, 3.5 50) _____
 A) Yes B) No

51) $4\frac{3}{5}, 5\frac{1}{3}$ and $3\frac{1}{4}, 5$ 51) _____
 A) Yes B) No

52) 12.56, 3.14 and 3.14, 0.785 52) _____
 A) Yes B) No

53) $10.5, 3\frac{1}{2}$ and $15.75, 5\frac{1}{4}$

A) Yes

B) No

53) _____

Solve. Give your answer as a mixed number if appropriate.

54) $\frac{x}{42} = \frac{3}{14}$

A) 1

B) 9

C) 196

D) 12

54) _____

55) $\frac{49}{35} = \frac{n}{40}$

A) $56\frac{2}{3}$

B) 56

C) $56\frac{1}{4}$

D) $56\frac{1}{2}$

55) _____

56) $\frac{x}{18} = \frac{23}{72}$

A) $5\frac{3}{4}$

B) $5\frac{1}{3}$

C) $7\frac{7}{8}$

D) $3\frac{1}{8}$

56) _____

57) $\frac{9}{11} = \frac{18}{n}$

A) 198

B) $\frac{9}{198}$

C) $14\frac{8}{11}$

D) 22

57) _____

58) $\frac{1}{2} = \frac{x}{9}$

A) 9

B) $\frac{1}{18}$

C) 18

D) $4\frac{1}{2}$

58) _____

59) $\frac{33}{132} = \frac{18}{x}$

A) $\frac{1}{72}$

B) 72

C) $4\frac{1}{2}$

D) 2343

59) _____

60) $\frac{140}{35} = \frac{n}{11}$

A) 44

B) 1505

C) $2\frac{3}{4}$

D) $\frac{1}{44}$

60) _____

61) $\frac{x}{7} = \frac{0}{21}$

A) 3

B) 1

C) 0

D) 7

61) _____

$$62) \frac{40}{8} = \frac{20}{n}$$

A) 20

B) 5

C) 2

D) 4

62) _____

Solve.

$$63) \frac{3.3}{4} = \frac{x}{7}$$

A) 2.6

B) 0.12

C) 0.58

D) 5.775

63) _____

$$64) \frac{4}{19} = \frac{6.6}{y}$$

A) 31.35

B) 1.61

C) 3.14

D) 6.4

64) _____

$$65) \frac{n}{11} = \frac{4.7}{2}$$

A) 17.23

B) 7.85

C) 26.7

D) 25.85

65) _____

$$66) \frac{0.24}{t} = \frac{0.3}{0.14}$$

A) 0.514

B) 0.0514

C) 2.4

D) 0.112

66) _____

$$67) \frac{m}{5.9} = \frac{1.62}{3.54}$$

A) 2.7

B) 5.9

C) 2.1

D) 5.8

67) _____

$$68) \frac{5.25}{p} = \frac{10.5}{15.5}$$

A) 1.016

B) 1.778

C) 11

D) 7.75

68) _____

$$69) \frac{21.5}{25.9} = \frac{124.7}{x}$$

A) 150.22

B) 5.645

C) 27.3

D) 600.39

69) _____

$$70) \frac{19.86}{3.36} = \frac{y}{5.6}$$

A) 0.45

B) 33.1

C) 7.58

D) 5.6

70) _____

$$71) \frac{35}{y} = \frac{5}{\frac{1}{7}}$$

A) 49

B) 5

C) 25

D) 1

71) _____

$$72) \frac{\frac{7}{1}}{\frac{1}{5}} = \frac{10}{x} \quad 72) \underline{\hspace{2cm}}$$

A) $\frac{2}{5}$

B) $\frac{5}{7}$

C) $\frac{5}{17}$

D) $\frac{2}{7}$

$$73) \frac{\frac{1}{56}}{\frac{1}{7}} = \frac{1}{t} \quad 73) \underline{\hspace{2cm}}$$

A) $1\frac{1}{7}$

B) 56

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

D) $\frac{7}{8}$

$$74) \frac{1}{5} = \frac{n}{6\frac{1}{9}} \quad 74) \underline{\hspace{2cm}}$$

A) $30\frac{1}{9}$

B) $\frac{9}{11}$

C) $1\frac{4}{5}$

D) $1\frac{2}{9}$

$$75) \frac{\frac{4}{5}}{\frac{2}{7}} = \frac{x}{\frac{3}{4}} \quad 75) \underline{\hspace{2cm}}$$

A) $\frac{6}{35}$

B) $\frac{3}{5}$

C) $2\frac{1}{10}$

D) $3\frac{1}{2}$

$$76) \frac{\frac{5}{4}}{m} = \frac{\frac{4}{3}}{\frac{4}{7}} \quad 76) \underline{\hspace{2cm}}$$

A) $1\frac{13}{15}$

B) $\frac{15}{28}$

C) $1\frac{3}{4}$

D) $\frac{4}{7}$

$$77) \frac{\frac{y}{5\frac{1}{6}}}{\frac{7\frac{4}{7}}{4\frac{1}{2}}} = \frac{7\frac{4}{7}}{4\frac{1}{2}} \quad 77) \underline{\hspace{2cm}}$$

A) $\frac{212}{651}$

B) $3\frac{15}{212}$

C) $8\frac{131}{189}$

D) $\frac{189}{1643}$

$$78) \frac{12 \frac{1}{6}}{7 \frac{3}{4}} = \frac{p}{10 \frac{1}{3}}$$

A) $6\frac{85}{146}$ B) $16\frac{2}{9}$ C) $\frac{146}{961}$ D) $\frac{9}{146}$ 78) _____

$$79) \frac{5 \frac{4}{7}}{10 \frac{2}{7}} = \frac{8 \frac{1}{2}}{n}$$

A) $\frac{48}{221}$ B) $\frac{13}{204}$ C) $15\frac{9}{13}$ D) $4\frac{29}{48}$ 79) _____

Use a proportion to solve the problem.

80) The ratio of the height to the width of a packaging label is 5 to 19. If the height of the label is 2.5 inches, what is its width? 80) _____

A) 9.5 in. B) 7.5 in. C) 0.7 in. D) 21.5 in.

81) On a map, the length of a nature-center trail is 9.2 centimeters. If the scale is 2 centimeters to 21 kilometers, what is the actual length of the trail? 81) _____

A) 100.6 km B) 193.2 km C) 97.6 km D) 96.6 km

82) Joan can mow a 7-acre field in 4 hours. How long would it take her to mow a 4.9-acre field? 82) _____

A) 0.7 hr B) 4.8 hr C) 5.8 hr D) 2.8 hr

83) A label printer prints 2 pages of labels in 2.9 seconds. How long will it take to print 6 pages of labels? 83) _____

A) 8.70 sec B) 10.70 sec C) 12.70 sec D) 11.70 sec

84) If 7 sandwich rolls cost \$1.82, how much will 25 rolls cost? 84) _____

A) \$12.74 B) \$7.50 C) \$14.74 D) \$6.50

85) Jim drove 144 miles in 4 hours. If he can keep the same pace, how long will it take him to drive 432 miles? 85) _____

A) 22 hr B) 24 hr C) 12 hr D) 576 hr

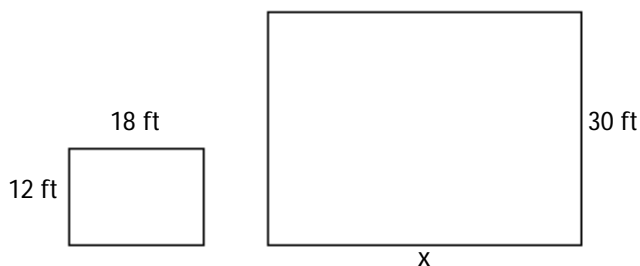
86) If a spring stretches 5 meters when a 2-kilogram weight is attached to it, how much will it stretch when a 16-kilogram weight is attached to it? 86) _____

A) 40 m B) 39 m C) 42 m D) 43 m

87) On Anne's bicycle, the ratio of pedal turns to rear-wheel turns in second gear is 4 to 7. If her rear wheel turns 833 times per mile, how many times does she turn the pedal in one mile? 87) _____

A) 837 times B) 840 times C) 1457.8 times D) 476 times

- 88) The ratio of the lengths of strings that play the notes F and G is 9 to 8. If a string 56 centimeters long plays a G, what is the length of the string that plays an F? 88) _____
 A) 64 cm B) 49.8 cm C) 65 cm D) 63 cm
- 89) The ratio of the distances a 7-iron and a 5-iron will drive a golf ball is 5 to 6. If a golfer averages 166 yards with a 7-iron, how far should he average with a 5-iron? 89) _____
 A) 138 yd B) 155 yd C) 199.2 yd D) 177 yd
- 90) On a map of the Thunderbird Country Club golf course, 2.5 inches represent 30 yards. How long is the 11th hole if the map shows 16.5 inches? 90) _____
 A) 4.5 yd B) 198 yd C) 1237.5 yd D) 495 yd
- 91) The scale on a map is $\frac{1}{4}$ inch to 6 miles. Find the actual distance between two towns for which the distance is represented by 32 inches on the map. 91) _____
 A) 756 mi B) 771.85 mi C) 760.5 mi D) 768 mi
- 92) On a map of the Fox River, 1 centimeter represents 2.5 kilometers. If a trail by the river is actually 10.00 kilometers long, what is the length of the trail on the map? 92) _____
 A) 2.5 cm B) 4.0 cm C) 6 cm D) 7.5 cm
- 93) The 6th hole at the Riverwoods Golf Course is 375 yards long. How long would it be on a model with a scale of 2.5 inches to 75 yards? 93) _____
 A) 12.5 in. B) 93.75 in. C) 187.5 in. D) 6.25 in.
- 94) In the rectangles below, the ratio of length to width is the same. Find the length of the larger rectangle. 94) _____



- A) 39 ft B) 48 ft C) 45 ft D) 42 ft
- 95) To determine the number of fish in a lake, a park ranger catches 240 fish, tags them, and returns them to the lake. Later, 72 fish are caught, and it is found that 20 of them are tagged. Estimate the number of fish in the lake. 95) _____
 A) 6 fish B) 345,600 fish C) 864 fish D) 67 fish

- 96) A quality-control inspector examined 190 calculators and found 11 of them to be defective. At this rate, how many defective calculators will there be in a batch of 15,960 calculators? 96) _____
 A) 8 calculators B) 2090 calculators
 C) 84 calculators D) 924 calculators
- 97) Under typical conditions, $1\frac{1}{2}$ ft of snow will melt to 2 in. of water. To how many inches of water will $5\frac{1}{2}$ ft of snow melt? 97) _____
 A) $7\frac{1}{3}$ in. B) $7\frac{1}{2}$ in. C) 11 in. D) $8\frac{1}{4}$ in.
- 98) The prize money in a competition will be divided between the 3rd, 2nd, and 1st place winners as 1 : 2 : 4. That is, the second place winner will receive 2 times as much as the third place winner and the first place winner will receive 4 times as much as the third place winner. If the total amount of prize money is \$3500, how should the money be divided among the three winners? 98) _____
 A) 3rd place: \$500, 2nd place: \$1000, 1st place: \$2000
 B) 3rd place: \$778, 2nd place: \$1167, 1st place: \$1556
 C) 3rd place: \$438, 2nd place: \$875, 1st place: \$1750
 D) 3rd place: \$583, 2nd place: \$1167, 1st place: \$2333
- 99) In baseball, the average number of earned runs given up by a pitcher in 9 innings is the pitcher's earned run average, ERA. For example, if a player gave up 90 earned runs in 250 innings during one year, his ERA is found by solving the proportion $\frac{\text{ERA}}{9} = \frac{90}{250}$. Find the ERA for a player who, in one year, gave up 101 earned runs in 239 innings. Round your answer to the nearest hundredth. 99) _____
 A) 3.80 B) 2.37 C) 21.30 D) 11.22
- 100) A math teacher claims that the students' test scores are directly proportional to the amount of time spent studying. Amy studies 14 hours for a test and gets a score of 70. At this rate, how many hours would she have to study to get a score of 83? 100) _____
 A) 27 hr B) 17.43 hr C) 16.6 hr D) 11.81 hr
- 101) The nutritional chart on the side of a box of breakfast cereal states that there are 125 calories in a $1\frac{1}{2}$ - cup serving. How many calories are there in 12 cups of the cereal? 101) _____
 A) 950 calories B) 1500 calories C) 1000 calories D) 16 calories
- 102) According to a recent study, of every 100 people in one American city, 48 are considered overweight. The population of the city is about 1.98 million. How many of these people would be considered overweight? 102) _____
 A) 95,040 people B) 950,400 people C) 957,813 people D) 888,244 people

- 103) Johnny's car will go 434 miles on 15.5 gallons of gasoline in highway driving. At this rate, how many gallons would be needed to travel 1396 miles on the highway? 103) _____
 A) About 47 gal B) About 56 gal C) About 53 gal D) About 50 gal
- 104) It takes 40 oz of grass seed to seed 2160 ft² of lawn. At this rate, about how much would be needed for 11,000 ft² of lawn? Round to the nearest whole number. 104) _____
 A) 198 oz B) 594,000 oz C) 201 oz D) 204 oz
- 105) On April 26, 2005, 1 U.S. dollar was worth about 0.52521 British pounds. How much would a car have cost in U.S. dollars that cost 10,310 British pounds? 105) _____
 A) \$19,163.57 B) \$5414.92 C) \$5124.07 D) \$19,630.24
- 106) So far this basketball season, Al has scored 560 points in 33 games. At this rate, how many points would he score in 80 games? 106) _____
 A) About 1358 points B) About 1249 points
 C) About 231 points D) About 1534 points
- 107) Coffee beans from 14 trees are required to produce the 17 lb of coffee that the average person in the United States drinks each year. About how many trees are required to produce 492 lb of coffee? Round to the nearest whole number. 107) _____
 A) 393 trees B) 450 trees C) 405 trees D) 597 trees
- 108) On April 26, 2005, 1 U.S. dollar was worth about 11.059 Mexican pesos. How much would 540 U.S. dollars be worth in Mexican pesos? 108) _____
 A) \$48.26 B) \$48.83 C) \$5891.40 D) \$5971.86
- 109) Martin can paint 1840 ft² with 4 gal of paint. How many 1-gal cans does he need in order to paint a 17,000-ft² wall? 109) _____
 A) 37 cans B) 39 cans C) 10 cans D) 148 cans

Give three kinds of notation for the percent.

- 110) 3% 110) _____
 A) $\frac{3}{100}$; $3 \times \frac{1}{100}$; 3×0.01 B) $\frac{0.3}{100}$; $3 \times \frac{1}{100}$; 3×0.01
 C) $\frac{3}{1000}$; $3 \times \frac{1}{1000}$; 3×0.001 D) $\frac{3}{10}$; $3 \times \frac{1}{10}$; 3×0.1
- 111) 23% 111) _____
 A) $\frac{23}{10}$; $23 \times \frac{1}{10}$; 23×0.1 B) $\frac{23}{100}$; $23 \times \frac{1}{100}$; 23×0.01
 C) $\frac{23}{1000}$; $23 \times \frac{1}{1000}$; 23×0.001 D) $\frac{2.3}{100}$; $23 \times \frac{1}{100}$; 23×0.01

112) 70%

A) $\frac{70}{1000}$; $70 \times \frac{1}{1000}$; 70×0.001

C) $\frac{70}{100}$; $70 \times \frac{1}{100}$; 70×0.01

B) $\frac{70}{10}$; $70 \times \frac{1}{10}$; 70×0.1

D) $\frac{7}{100}$; $7 \times \frac{1}{100}$; 7×0.01

112) _____

113) 44.7%

A) $\frac{44.7}{10}$; $44.7 \times \frac{1}{10}$; 44.7×0.1

C) $\frac{44.7}{1000}$; $44.7 \times \frac{1}{1000}$; 44.7×0.001

B) $\frac{44.7}{100}$; $44.7 \times \frac{1}{100}$; 44.7×0.01

D) $\frac{447}{100}$; $44 \times \frac{1}{100}$; 44×0.01

113) _____

114) 220%

A) $\frac{22}{100}$; $22 \times \frac{1}{100}$; 22×0.01

C) $\frac{220}{100}$; $220 \times \frac{1}{100}$; 220×0.01

B) $\frac{220}{1000}$; $220 \times \frac{1}{1000}$; 220×0.001

D) $\frac{220}{10}$; $220 \times \frac{1}{10}$; 220×0.1

114) _____

115) 167%

A) $\frac{167}{100}$; $167 \times \frac{1}{100}$; 167×0.01

C) $\frac{167}{1000}$; $167 \times \frac{1}{1000}$; 167×0.001

B) $\frac{167}{10000}$; $167 \times \frac{1}{10000}$; 167×0.0001

D) $\frac{167}{10}$; $167 \times \frac{1}{10}$; 167×0.1

115) _____

Find decimal notation.

116) 75%

A) 0.075

B) 0.64

C) 0.75

D) 7.5

116) _____

117) 70%

A) 0.59

B) 7

C) 0.7

D) 0.07

117) _____

118) 2.9%

A) -0.081

B) 0.0029

C) 0.29

D) 0.029

118) _____

119) 500%

A) 5.01

B) 0.5

C) 5

D) 50

119) _____

120) 320%

A) 32

B) 3.21

C) 0.32

D) 3.2

120) _____

121) 521%

A) 52.1

B) 0.521

C) 5.22

D) 5.21

121) _____

- 122) 0.6%
 A) 0.0006 B) 0.06 C) 0.006 D) 60 122) _____
- 123) 54.13%
 A) 0.5313 B) 0.05413 C) 0.5413 D) 5.413 123) _____
- 124) 0.77%
 A) 0.0087 B) 0.077 C) 0.77 D) 0.0077 124) _____
- 125) 0.015%
 A) 1.5 B) 0.00015 C) 0.000015 D) 0.0015 125) _____
- 126) $4\frac{4}{5}\%$
 A) 0.48 B) 0.0048 C) 480 D) 0.048 126) _____
- 127) $59\frac{3}{8}\%$
 A) 0.59375 B) 5937.5 C) 0.059375 D) 5.9375 127) _____
- 128) $64\frac{1}{4}\%$
 A) 0.06425 B) 6425 C) 0.6425 D) 6.425 128) _____
- 129) $83\frac{5}{8}\%$
 A) 0.083625 B) 0.83625 C) 8362.5 D) 8.3625 129) _____

Find decimal notation for the number(s) in percent notation.

- 130) A record store downtown is offering 3% off all purchases for the month of December.
 A) 0.03 B) 3 C) 0.03% D) 0.3 130) _____
- 131) The number of lawyer's in Hannah's town has increased by 2% in the last year.
 A) 0.2 B) 0.02% C) 2 D) 0.02 131) _____
- 132) Only 0.8% of those polled had heard the news.
 A) 0.0008 B) 0.008 C) 0.8 D) 0.08 132) _____
- 133) At State University, 13% of the students are female.
 A) 0.013 B) 0.13 C) 0.0013 D) 13 133) _____
- 134) 36% of those undergoing a certain surgical procedure make a full recovery.
 A) 0.0036 B) 0.036 C) 0.36 D) 36 134) _____

135) At a certain company 27.3% of the employees have engineering degrees.

- A) 0.273 B) 273 C) 0.0273 D) 2.73

135) _____

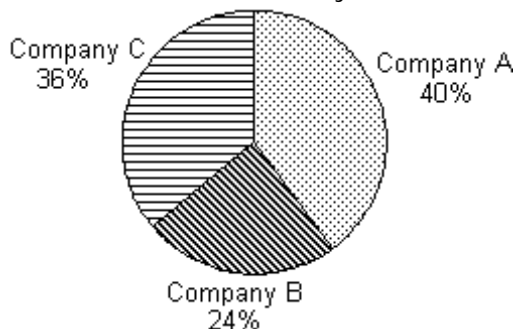
136) The telethon raised 143% of its anticipated goal.

- A) 0.143 B) 1.43 C) 14.3 D) 143

136) _____

137)

Shares of Stock Owned by an Investor

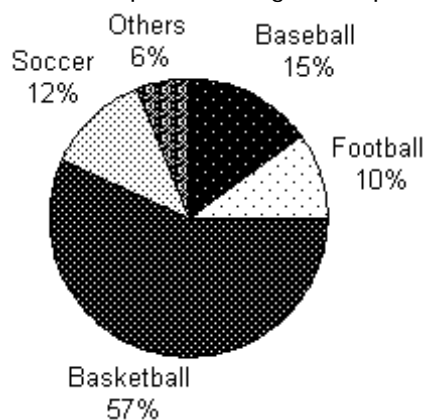


- A) 3.6; 0.4; 2.4 B) 0.36; 0.4; 0.24
C) 0.036; 0.04; 0.024 D) 36.0; 40.0; 24.0

137) _____

138)

Favorite Sports Among a Group of Students



- A) 12.0; 6.0; 1.5; 1.0; 5.7 B) 0.12; 0.06; 0.15; 0.1; 0.57
C) 0.012; 0.006; 0.015; 0.01; 0.057 D) 0.102; 0.006; 0.105; 0.01; 0.507

138) _____

Find percent notation.

139) 0.98

- A) 98% B) 0.098% C) 9.8% D) 980%

139) _____

140) 0.1

- A) 100% B) 0.01% C) 10% D) 0.1%

140) _____

- 141) 0.07
A) 7% B) 0.0007% C) 0.7% D) 70% 141) _____
- 142) 0.448
A) 448% B) 0.0448% C) 44.8% D) 0.448% 142) _____
- 143) 1.2
A) 12% B) 0.0012% C) 0.12% D) 120% 143) _____
- 144) 0.00382
A) 0.0382% B) 0.191% C) 0.382% D) 0.000382% 144) _____
- 145) 3
A) 150% B) 0.3% C) 300% D) 0.03% 145) _____
- 146) 0.00063
A) 0.000063% B) 0.0063% C) 0.063% D) 0.63% 146) _____
- 147) 0.021
A) 0.0021% B) 0.21% C) 2.1% D) 21% 147) _____
- 148) 0.0906
A) 0.906% B) 9.06% C) 90.6% D) 0.00906% 148) _____
- Find percent notation for the number in decimal notation.
- 149) 0.0067 of all products produced at a certain factory contain defects.
A) 6.7% B) 67% C) 0.067 D) 0.67% 149) _____
- 150) 0.005 of all math majors at a certain university double major in music.
A) 5 B) 0.5% C) 0.05% D) 5% 150) _____
- 151) In one city, 0.575 of those polled said they would not vote for the incumbent in the upcoming congressional election.
A) 57.5% B) 0.0575% C) 0.575% D) 5.75% 151) _____
- 152) Sales this year were 1.1 times last year's sales.
A) 1.1% B) 0.011% C) 11% D) 110% 152) _____
- 153) Attendance this year was 9.037 times greater than last year.
A) 0.09037% B) 9037% C) 903.7% D) 90.37% 153) _____
- 154) 0.19 of seniors at Elmwood High School spend more than two hours per day on the Internet.
A) 19% B) 190% C) 1.9% D) 0.0019% 154) _____

155) 0.1954 of the employees of one company work more than 50 hours per week.

A) 195.4%

B) 0.01954%

C) 1.954%

D) 19.54%

155) _____

Find percent notation.

156) $\frac{46}{100}$

A) 46%

B) 0.46%

C) 460%

D) 4.6%

156) _____

157) $\frac{9}{10}$

A) 0.9%

B) 900%

C) 9%

D) 90%

157) _____

158) $\frac{7}{25}$

A) 14%

B) 28%

C) 2.8%

D) 1000%

158) _____

159) $\frac{1}{9}$ Round to the nearest tenth, if necessary.

A) 1.1%

B) 12.3%

C) 90%

D) 11.1%

159) _____

160) $\frac{6}{7}$ Round to the nearest tenth, if necessary.

A) 8.6%

B) 70%

C) 85.7%

D) 122.4%

160) _____

161) $\frac{7}{8}$ Round to the nearest tenth, if necessary.

A) 87.5%

B) 36.5%

C) 240%

D) 8.8%

161) _____

162) $\frac{4}{3}$ Round to the nearest tenth, if necessary.

A) 180%

B) 133.3%

C) 74.1%

D) 13.3%

162) _____

163) $\frac{13}{16}$

A) 0.08125%

B) 81.25%

C) 0.8125%

D) 8.125%

163) _____

164) $\frac{1}{6}$

A) $\frac{1}{600}\%$

B) $16\frac{2}{3}\%$

C) $\frac{1}{60}\%$

D) $1\frac{2}{3}\%$

164) _____

Find percent notation for the fraction notation in the sentence.

165) In one company, one out of every ten employees use all their sick time. What percent use all their sick time? 165) _____
 A) 1% B) 10% C) 9% D) 90%

166) $\frac{18}{25}$ of the employees of one company say that they have job satisfaction. 166) _____
 A) 720% B) 72% C) 7.2% D) 0.72%

167) Bob's rent is $\frac{9}{20}$ of his income. What percent of his income goes to pay the rent? 167) _____
 A) 40% B) 50% C) 55% D) 45%

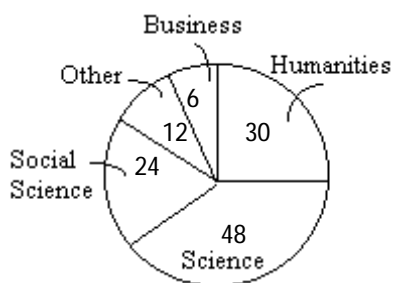
168) $\frac{49}{50}$ of the residents of Ashville exercise regularly. 168) _____
 A) 980% B) 0.98% C) 9.8% D) 98%

169) $\frac{260}{500}$ of those polled said that they disagreed with the mayor. 169) _____
 A) 5.2% B) 5200% C) 52% D) 520%

170) In one town, $\frac{9}{100}$ of those with a college education end up moving away to a larger city. 170) _____
 A) 0.9% B) 0.09% C) 9% D) 90%

171) $\frac{27}{50}$ of those diagnosed with a certain disease survive at least five years. 171) _____
 A) 5.4% B) 5400% C) 54% D) 540%

172) 172) _____



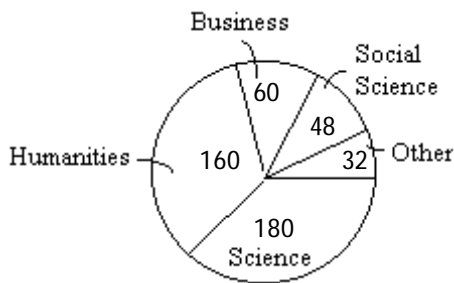
The pie chart shows the majors for 120 college students at Blackwood Community College. $\frac{48}{120}$ of

the students are majoring in science. Find percent notation for $\frac{48}{120}$.

A) 40% B) 4% C) 33% D) 20%

173)

173) _____



The pie chart shows the majors for 480 college students at Blackwood Community College. $\frac{180}{480}$ of the students are majoring in science. Find percent notation for $\frac{180}{480}$.

A) 3.3%

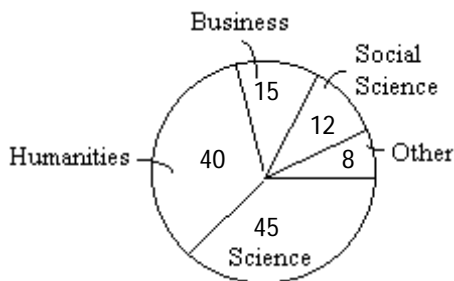
B) 37.5%

C) 3.75%

D) 33%

174)

174) _____



The pie chart shows the major for 120 college students at Blackwood Community College. $\frac{12}{120}$ of the students are majoring in social science. Find percent notation for $\frac{12}{120}$.

A) 8.3%

B) 10%

C) 0.83%

D) 1%

Find fraction notation and simplify.

175) 50%

175) _____

A) $\frac{1}{4}$ B) $\frac{1}{2}$

C) 1

D) 5

176) $64\frac{2}{7}\%$

176) _____

A) $\frac{9}{7}$ B) $\frac{9}{28}$ C) $\frac{9}{14}$ D) $\frac{45}{7}$

177) 87.5%

177) _____

A) $\frac{7}{9}$ B) $\frac{7}{8}$ C) $\frac{35}{4}$ D) $\frac{7}{11}$

178) $47\frac{5}{9}\%$ 178) _____

A) $\frac{107}{225}$ B) $\frac{107}{25}$ C) $\frac{428}{9}$ D) $\frac{42800}{9}$

179) 480% 179) _____

A) 48 B) $\frac{48}{5}$ C) $\frac{12}{5}$ D) $\frac{24}{5}$

180) 0.8% 180) _____

A) $\frac{1}{250}$ B) $\frac{2}{25}$ C) $\frac{1}{125}$ D) $\frac{2}{125}$

181) 0.971% 181) _____

A) $\frac{971}{100000}$ B) $\frac{971}{100}$ C) $\frac{971}{10000}$ D) $\frac{971}{1000}$

182) $94.\overline{6}\%$ 182) _____

A) $\frac{71}{750}$ B) $\frac{71}{75}$ C) $\frac{142}{15}$ D) $\frac{284}{3}$

183) $183.\overline{3}\%$ 183) _____

A) $\frac{11}{6}$ B) $\frac{11}{60}$ C) $\frac{11}{3}$ D) $\frac{550}{3}$

184) 6.65% 184) _____

A) $\frac{133}{200}$ B) $\frac{133}{2000}$ C) $\frac{133}{20}$ D) $\frac{133}{2}$

Find fraction notation for the percent notation in the problem.

185) A serving of cooked white rice provides 7% of the daily requirement of an essential mineral. 185) _____

A) $\frac{7}{1000}$ B) $\frac{1}{7}$ C) $\frac{7}{100}$ D) $\frac{7}{10}$

186) At Karen's school, students are asked whether they live in a rural, a semirural, or an urban area. 186) _____
50% of students live in an urban area.

A) 1 B) 5 C) $\frac{1}{4}$ D) $\frac{1}{2}$

187) An employee had 6% deducted from his paycheck for deposit in the company 401K plan. 187) _____

A) $\frac{3}{500}$ B) $\frac{3}{5}$ C) $\frac{3}{50}$ D) $\frac{1}{6}$

188) Housing sales for the month of May were up 13% from April. 188) _____
 A) $\frac{13}{1000}$ B) $\frac{1}{13}$ C) $\frac{87}{100}$ D) $\frac{13}{100}$

189) Sales of a particular product increased 31% over last year's sales of the product. 189) _____
 A) $\frac{1}{31}$ B) $\frac{31}{1000}$ C) $\frac{31}{100}$ D) $\frac{69}{100}$

190) A bowl of oatmeal supplies 20% of the minimum daily requirement of an essential vitamin. 190) _____
 A) $\frac{4}{5}$ B) $\frac{20}{100}$ C) $\frac{1}{5}$ D) $\frac{1}{20}$

191) The current annual rate of inflation is 3.4%. 191) _____
 A) $\frac{1}{3}$ B) $\frac{17}{500}$ C) $\frac{5}{17}$ D) $\frac{17}{50}$

192) 13.6% of the employees of one company use public transportation to get to work. 192) _____
 A) $\frac{34}{25}$ B) $\frac{17}{125}$ C) $\frac{1}{13}$ D) $\frac{5}{68}$

193) The interest rate on a car loan was 8.76%. 193) _____
 A) $\frac{219}{250}$ B) $\frac{219}{2500}$ C) $\frac{876}{100}$ D) $\frac{25}{219}$

194) Population of Country X by Selected Age Categories 194) _____
 (Data have been rounded to the nearest percent.)

Age Category	Percent of Population
0-5 years	2%
6-17 years	30%
18-29 years	36%
30 years and older	70%
65 years and older	16%
80 years and older	4%

Find the fraction notation for the percent of the population that is 0-5 years old.

A) $\frac{1}{50}$ B) $\frac{3}{10}$ C) 3 D) $\frac{1}{5}$

- 195) Population of Country X by Selected Age Categories
(Data have been rounded to the nearest percent.)

Age Category	Percent of Population
0-5 years	2%
6-17 years	10%
18-29 years	32%
18 years and older	65%
65 years and older	12%
80 years and older	6%

Find the fraction notation for the percent of the population that is 18 years and older.

- A) $\frac{1}{10}$ B) 1 C) $\frac{1}{50}$ D) $\frac{1}{5}$

195) _____

Supply the missing numbers.

- 196) fraction decimal percent

$$\frac{5}{6}$$

Use the notation for repeating decimals. Do not round.

- A) $0.\overline{83}$ $83.\overline{3}\%$ B) $0.\overline{83}$ $83.\overline{83}\%$
C) $0.\overline{56}$ $56.\overline{6}\%$ D) $0.0\overline{83}$ $8.\overline{3}\%$

196) _____

- 197) fraction decimal percent

$$91.\overline{6}\%$$

- A) $\frac{11}{12}$ $0.091\overline{6}$ B) $\frac{13}{14}$ $0.091\overline{6}$ C) $\frac{11}{12}$ $0.91\overline{6}$ D) $\frac{91}{100}$ $0.91\overline{6}$

197) _____

- 198) fraction decimal percent

$$1.\overline{3}$$

- A) $\frac{4}{3}$ $13.\overline{3}\%$ B) $\frac{7}{6}$ $11.\overline{3}\%$ C) $\frac{4}{3}$ $133.\overline{3}\%$ D) $\frac{7}{6}$ $113.\overline{3}\%$

198) _____

- 199) fraction decimal percent

$$0.6$$

- A) $\frac{2}{5}$ 6% B) $\frac{2}{5}$ 60% C) $\frac{3}{5}$ 6% D) $\frac{3}{5}$ 60%

199) _____

- 200) fraction decimal percent

$$\frac{3}{4}$$

- A) 0.75 75% B) 7.5 75% C) 0.75 7.5% D) 0.65 6.5%

200) _____

201) fraction decimal percent
75%

201) _____

A) $\frac{3}{4}$ 7.5

B) $\frac{1}{2}$ 7.5

C) $\frac{1}{2}$ 0.75

D) $\frac{3}{4}$ 0.75

202) fraction decimal percent
 $\frac{4}{7}$

202) _____

If necessary, round the decimal to the nearest thousandth and the percent to the nearest tenth.

A) 0.571 5.71%

B) 0.571 57.1%

C) 0.691 69.1%

D) 0.691 69.1%

203) fraction decimal percent
 $\frac{7}{300}$

203) _____

If necessary, round the decimal to the nearest thousandth and the percent to the nearest tenth.

A) 0.023 2.3%

B) 0.143 14.3%

C) 0.143 14.3%

D) 0.023 0.23%

204) fraction decimal percent
0.23

204) _____

A) $\frac{11}{50}$ 2.3%

B) $\frac{23}{100}$ 2.3%

C) $\frac{11}{50}$ 23%

D) $\frac{23}{100}$ 23%

205) fraction decimal percent
31%

205) _____

A) $\frac{3}{10}$ 3.1

B) $\frac{31}{100}$ 3.1

C) $\frac{31}{100}$ 0.31

D) $\frac{3}{10}$ 0.31

Translate to an equation. Do not solve.

206) What is 25% of 80?

206) _____

A) $n = 25\% \times 80$

B) $n \times 25\% = 80$

C) $25 = n \times 80\%$

D) $n = 80\% \times 25$

207) 51% of 65 is what?

207) _____

A) $51\% \times y = 65$

B) $51\% + 65 = y$

C) $51\% \times 65 = y$

D) $51\% = 65 \times y$

208) 37 is what percent of 85?

208) _____

A) $37 = p \times 85\%$

B) $37 \times p = 85$

C) $37 = p \times 85$

D) $37\% = p \times 85$

209) What percent of 21 is 9?

209) _____

A) $t = 21\% \times 9$

B) $t = 21 \times 9$

C) $t \times 21\% = 9$

D) $t \times 21 = 9$

- | | | | | | |
|---|---------------------------|---------------------------|---------------------------|-------------------------|------------|
| 210) 91 is 32% of what? | A) $91 \times n = 32\%$ | B) $91 \times 32\% = n$ | C) $91 = 32 \times n$ | D) $91 = 32\% \times n$ | 210) _____ |
| 211) 30% of what is 31? | A) $30\% \times 31 = m$ | B) $30\% + m = 31$ | C) $30\% \times m = 31$ | D) $30\% = m \times 31$ | 211) _____ |
| 212) 40% of what is 70? | A) $40\% \times p = 70$ | B) $40\% + p = 70$ | C) $40\% \times 70 = p$ | D) $40\% = p \times 70$ | 212) _____ |
| 213) What is 24.2% of 54? | A) $n \times 24.2\% = 54$ | B) $n = 54\% \times 24.2$ | C) $n = 24.2\% \times 54$ | D) $24.2 = n \times 54$ | 213) _____ |
| 214) 33.7 is what percent of 74? | A) $33.7 \times z = 74$ | B) $33.7 = z \times 74\%$ | C) $33.7\% = z \times 74$ | D) $33.7 = z \times 74$ | 214) _____ |
| Translate to an equation and solve. When necessary, round to the nearest hundredth. | | | | | |
| 215) What is 50% of 200? | A) 10 | B) 1000 | C) 100 | D) 1 | 215) _____ |
| 216) 33% of 1900 is what? | A) 62.7 | B) 62,700 | C) 6270 | D) 627 | 216) _____ |
| 217) What is 2% of 9400? | A) 2880 | B) 288 | C) 1880 | D) 188 | 217) _____ |
| 218) What is 2% of \$122? | A) \$3.66 | B) \$24.40 | C) \$1.22 | D) \$2.44 | 218) _____ |
| 219) What is 75% of 7220? | A) 54,150 | B) 542 | C) 541,500 | D) 5415 | 219) _____ |
| 220) What is 83% of 190? | A) 15.77 | B) 157.7 | C) 1577 | D) 15,770 | 220) _____ |
| 221) What is 8.1% of 29? | A) 235 | B) 23.5 | C) 2.35 | D) 0.24 | 221) _____ |
| 222) What is 2000% of 280? | A) 560 | B) 5600 | C) 560,000 | D) 56,000 | 222) _____ |
| 223) What is 150% of 4260? | A) 639 | B) 63,900 | C) 639,000 | D) 6390 | 223) _____ |

Translate to an equation and solve.

- 224) 50.5% of 2200 is what? 224) _____
A) 1100 B) 1109 C) 1089 D) 1111
- 225) What is 6.3% of \$121,160? 225) _____
A) \$1923.17 B) \$19,231.75 C) \$128,793.08 D) \$7633.08
- 226) What is $3\frac{1}{5}\%$ of 83? 226) _____
Round to the nearest hundredth if necessary.
A) 2.66 B) 0.03 C) 266 D) 26.6
- 227) What is $4\frac{1}{5}\%$ of \$87,600? 227) _____
Round to the nearest whole number.
A) 36,790 B) 3679 C) 219,000 D) 2,190,000
- 228) What percent of 350 is 14? 228) _____
A) 25% B) 4% C) 5% D) 26%
- 229) 304 is what percentage of 38? 229) _____
A) 8% B) $\frac{1}{8}\%$ C) 800% D) 80%
- 230) What percent of 36 is 24? 230) _____
A) $33\frac{1}{3}\%$ B) 65% C) 150% D) $66\frac{2}{3}\%$
- 231) 40 is what percent of 32? 231) _____
A) 80% B) 1.25% C) 130% D) 125%
- 232) What percent of 55 is 44? 232) _____
A) 125% B) 75% C) 80% D) 120%
- 233) 26 is what percent of 13? 233) _____
A) 150% B) 200% C) 50% D) 100%
- 234) What percent of 50 is 15? 234) _____
A) 44% B) 30% C) 15% D) 88%
- 235) 140 is what percent of 280? 235) _____
A) 40% B) 200% C) 100% D) 50%

- 236) 295 is what percent of 1810? 236) _____
 Round your answer to the nearest tenth of a percent.
 A) 0.2% B) 613.6% C) 16.3% D) 5.1%
- 237) What percent of 741 is 942? 237) _____
 Round your answer to the nearest tenth of a percent.
 A) 1.3% B) 0.1% C) 78.7% D) 127.1%
- 238) 80 is 40% of what? 238) _____
 A) 32 B) 200 C) 2000 D) 20
- 239) \$17 is 4% of what? 239) _____
 A) \$42.5 B) \$425 C) \$68 D) \$4250
- 240) 45% of what is 72? 240) _____
 A) 1600 B) 63 C) 0.63 D) 160
- 241) 100% of what is 22? 241) _____
 A) 1 B) 22 C) 44 D) 100
- 242) \$117 is 36% of what? 242) _____
 A) \$0.31 B) \$325 C) \$31 D) \$3250
- 243) 579 is 12.5% of what? 243) _____
 A) 46,320 B) 16 C) 4632 D) 0.16
- 244) 69 is 115% of what? 244) _____
 A) 132.25 B) 60 C) 600 D) 13,225
- 245) $2\frac{1}{2}\%$ of what is 82 ? 245) _____
 A) 2.05 B) 328 C) 3280 D) 32,800
- 246) $66\frac{2}{3}\%$ of what is 478? 246) _____
 A) 318.67 B) 71.7 C) 717 D) 7170
- 247) 68% of what is 28.9 ? 247) _____
 A) 42.5 B) 68 C) 235 D) 17

Translate to a proportion. Do not solve.

248) What is 16% of 98?

A) $\frac{16}{100} = \frac{a}{98}$

B) $\frac{100}{98} = \frac{a}{16}$

C) $\frac{16}{100} = \frac{98}{b}$

D) $\frac{16}{98} = \frac{a}{100}$

248) _____

249) 49% of 66 is what?

A) $\frac{49}{100} = \frac{66}{b}$

B) $\frac{100}{66} = \frac{a}{49}$

C) $\frac{49}{100} = \frac{a}{66}$

D) $\frac{49}{66} = \frac{a}{100}$

249) _____

250) 11 is what percent of 86?

A) $\frac{N}{100} = \frac{11}{86}$

B) $\frac{11}{100} = \frac{a}{86}$

C) $\frac{N}{100} = \frac{86}{11}$

D) $\frac{11}{100} = \frac{86}{b}$

250) _____

251) What percent of 63 is 35?

A) $\frac{35}{100} = \frac{a}{63}$

B) $\frac{35}{100} = \frac{63}{b}$

C) $\frac{N}{100} = \frac{63}{35}$

D) $\frac{N}{100} = \frac{35}{63}$

251) _____

252) 73 is 76% of what?

A) $\frac{73}{100} = \frac{76}{b}$

B) $\frac{76}{100} = \frac{73}{b}$

C) $\frac{76}{100} = \frac{a}{73}$

D) $\frac{N}{100} = \frac{76}{73}$

252) _____

253) 42% of what is 13?

A) $\frac{42}{100} = \frac{13}{b}$

B) $\frac{13}{100} = \frac{42}{b}$

C) $\frac{N}{100} = \frac{42}{13}$

D) $\frac{42}{100} = \frac{a}{13}$

253) _____

254) 105% of what is 61?

A) $\frac{N}{100} = \frac{105}{61}$

B) $\frac{61}{100} = \frac{105}{b}$

C) $\frac{105}{100} = \frac{a}{61}$

D) $\frac{105}{100} = \frac{61}{b}$

254) _____

255) What is 143% of 90?

A) $\frac{143}{100} = \frac{90}{b}$

B) $\frac{143}{90} = \frac{a}{100}$

C) $\frac{143}{100} = \frac{a}{90}$

D) $\frac{100}{90} = \frac{a}{143}$

255) _____

256) 4.6 is what percent of 9.7?

A) $\frac{N}{100} = \frac{4.6}{9.7}$

B) $\frac{N}{100} = \frac{9.7}{4.6}$

C) $\frac{4.6}{9.7} = \frac{100}{b}$

D) $\frac{4.6}{100} = \frac{a}{9.7}$

256) _____

257) 3.7% of 62 is what?

A) $\frac{3.7}{100} = \frac{62}{b}$

B) $\frac{100}{62} = \frac{a}{3.7}$

C) $\frac{3.7}{62} = \frac{a}{100}$

D) $\frac{3.7}{100} = \frac{a}{62}$

257) _____

Translate to a proportion and solve. When necessary, round to the nearest hundredth.

258) What is 50% of 700?

A) 35

B) 3500

C) 3.5

D) 350

258) _____

- 259) 33% of 1900 is what? 259) _____
 A) 62.7 B) 62,700 C) 627 D) 6270
- 260) What is 3% of 1400? 260) _____
 A) 142 B) 42 C) 1420 D) 420
- 261) What is 5% of \$194? 261) _____
 A) \$97.00 B) \$11.64 C) \$9.70 D) \$7.76
- 262) What is 150% of 1170? 262) _____
 A) 1755 B) 17,550 C) 175,500 D) 176
- 263) What is 87% of 294? 263) _____
 A) 2557.8 B) 25.58 C) 255.78 D) 25,578
- 264) What is 8.0% of 38? 264) _____
 A) 304 B) 3.04 C) 30.4 D) 0.3
- 265) What is 7000% of 158? 265) _____
 A) 11,060 B) 1,106,000 C) 110,600 D) 1106
- 266) What is 150% of 3330? 266) _____
 A) 500 B) 4995 C) 49,950 D) 499,500
- Translate to a proportion and solve.
- 267) 36.5% of 3800 is what? 267) _____
 A) 2413 B) 1387 C) 2433 D) 1900
- 268) What is 2.5% of \$124,160? 268) _____
 A) \$127,264.00 B) \$3104.00 C) \$4966.40 D) \$49,664.00
- 269) What is $6\frac{1}{5}\%$ of 93? 269) _____
 Round to the nearest hundredth if necessary.
 A) 57.7 B) 0.06 C) 577 D) 5.77
- 270) What is $4\frac{1}{3}\%$ of \$90,400? 270) _____
 Round to the nearest whole number.
 A) 39,170 B) 226,000 C) 3917 D) 2,260,000
- 271) What percent of 168 is 42? 271) _____
 A) 5% B) 25% C) 4% D) 26%

- 272) 603 is what percentage of 67? 272) _____
 A) 90% B) $\frac{1}{9}\%$ C) 9% D) 900%
- 273) What percent of 33 is 22? 273) _____
 A) 65% B) $33\frac{1}{3}\%$ C) $66\frac{2}{3}\%$ D) 150%
- 274) 45 is what percent of 36? 274) _____
 A) 125% B) 80% C) 130% D) 1.25%
- 275) 109 is what percent of 100? 275) _____
 A) 9% B) 109% C) 10.9% D) 1.09%
- 276) What percent of 35 is 28? 276) _____
 A) 80% B) 120% C) 125% D) 75%
- 277) What percent of 50 is 18? 277) _____
 A) 18% B) 160% C) 36% D) 80%
- 278) 110 is what percent of 220? 278) _____
 A) 50% B) 100% C) 40% D) 200%
- 279) 190 is what percent of 1520? 279) _____
 Round your answer to the nearest tenth of a percent.
 A) 12.5% B) 0.1% C) 800.0% D) 38%
- 280) What percent of 775 is 907? 280) _____
 Round your answer to the nearest tenth of a percent.
 A) 0.1% B) 1.2% C) 85.4% D) 117.0%
- 281) 64 is 20% of what? 281) _____
 A) 12.8 B) 32 C) 3200 D) 320
- 282) \$20 is 8% of what? 282) _____
 A) \$250 B) \$2500 C) \$160 D) \$25
- 283) 45% of what is 72? 283) _____
 A) 1600 B) 63 C) 0.63 D) 160
- 284) 100% of what is 16? 284) _____
 A) 100 B) 16 C) 1 D) 32

- 285) \$189 is 45% of what? 285) _____
 A) \$420 B) \$24 C) \$0.24 D) \$4200
- 286) 570 is 12% of what? 286) _____
 A) 0.14 B) 14 C) 4750 D) 47,500
- 287) 77 is 140% of what? 287) _____
 A) 55 B) 19,600 C) 550 D) 196
- 288) $2\frac{1}{2}\%$ of what is 76 ? 288) _____
 A) 30,400 B) 1.9 C) 3040 D) 304
- 289) $66\frac{2}{3}\%$ of what is 90? 289) _____
 A) 13.5 B) 135 C) 60 D) 1350
- 290) 76% of what is 34.2 ? 290) _____
 A) 45 B) 19 C) 76 D) 222

Solve the problem.

- 291) An investment broker invests \$91,000 in real estate and earns 6% per year on the investment. How much money is earned per year? 291) _____
 A) \$5460 B) \$54,600 C) \$151,667 D) \$1,516,667
- 292) 11% of the residents of a city are originally from India. The population of the city is 96,800. How many residents of the city are originally from India? 292) _____
 A) 880,000 B) 10,648 C) 106,480 D) 88,000
- 293) A lab technician has 355 mL of a solution of water and acid. 6% is acid. How many milliliters are acid? Round to the nearest hundredth if necessary. 293) _____
 A) 24.85 mL B) 17.75 mL C) 213.00 mL D) 21.30 mL
- 294) In one country, it is estimated that in the year 2050, 5% of the population will be over 70. If the population of this country in 2050 is 441 million, how many people will be over 70? 294) _____
 A) 26.46 million B) 17.64 million C) 220.50 million D) 22.05 million
- 295) The population of a country is 38 million. It is estimated that 8.7% are overweight. How many people are overweight? Round to the nearest hundredth of a million if necessary. 295) _____
 A) 0.33 million B) 331 million C) 3.31 million D) 33.1 million

- 296) The population of a city is roughly 2,457,000. Of these, 6.9% are of Hispanic origin. How many residents of the city are of Hispanic origin? 296) _____
 A) About 169,533 residents B) About 16,953 residents
 C) About 356,087 residents D) About 1,695,330 residents
- 297) A chemical solution contains 5% sodium. How much sodium is in 4.5 mL of solution? Round to the nearest hundredth if necessary. 297) _____
 A) 2.25 mL B) 9 mL C) 0.225 mL D) 90 mL
- 298) A retail store had monthly sales of \$61,400 and spent 20% of it on promotions. How much was spent on promotions? 298) _____
 A) \$30,700 B) \$307,000 C) \$122,800 D) \$12,280
- 299) Juliette forgot to study for a test. Of the 180 questions on the test, she answered only 45% correctly. How many questions did she answer correctly? 299) _____
 A) 85 B) 45 C) 81 D) 56
- 300) 42.5% of the students at a certain college are men. If the total number of students at the college is 3200, how many female students are there? 300) _____
 A) 1860 B) 1840 C) 1360 D) 1600
- 301) Alex and Juana went on a 75-mile canoe trip with their class. On the first day they traveled 15 miles. What percent of the total distance did they canoe? 301) _____
 A) 20% B) 5% C) 0.2% D) 500%
- 302) Students at Maple School earned \$568 selling candles. They want to make \$2000 for a club trip. What percent of their goal has been reached? 302) _____
 A) 4% B) 40% C) 0.284% D) 28.4%
- 303) In one town, 224 of the 1750 people who voted in the last presidential election are Hispanic. What percent is this? 303) _____
 A) 80% B) 0.128% C) 12.8% D) 8%
- 304) Matthew has saved a total of \$14,000, of which \$3500 is invested in the stock market. What percent of his total savings is invested in the stock market? 304) _____
 A) 30% B) 20% C) 35% D) 25%
- 305) In a clinical study, 15 of the 750 subjects receiving a migraine medication developed side effects. What percentage developed side effects? 305) _____
 A) 2% B) 12% C) 4% D) 1%
- 306) 165 students attended an assembly at Piper School. The student enrollment at the school is 220. What percentage of the students attended the assembly? 306) _____
 A) 55% B) 75% C) 65% D) 80%

- 307) In Little League, Andrew hit 5 home runs in 20 at bats. What percent of the at bats were home runs? 307) _____
 A) 35% B) 30% C) 23% D) 25%
- 308) A banquet dinner is being organized by a club. The actual cost of the dinner is \$30 per person. The members are to pay \$6 to attend, with the club making up the difference. What percentage of the dinner's cost is the member to pay? 308) _____
 A) 20% B) 10% C) 12% D) 15%
- 309) In basketball, Matthew made 237 baskets in 600 attempts. What percent of his attempts were made? 309) _____
 A) 40% B) $40\frac{1}{2}\%$ C) 38% D) $39\frac{1}{2}\%$
- 310) During one year, the Cheung's real estate bill included \$229 for county services. Of this amount, \$98 went to the highway department. What percent did the county highway department receive? Round your answer to two decimal places. 310) _____
 A) 57.21% B) 13.10% C) 42.79% D) 42.36%
- 311) On a test, Manuel answered incorrectly 69 questions or 46% of the questions. How many questions were on the test? 311) _____
 A) 150 B) 1500 C) 67 D) 0.67
- 312) Matthew has \$2400 invested in the stock market. This amounts to 25% of his total savings. How much has Matthew saved? 312) _____
 A) \$9600 B) \$9700 C) \$96,000 D) \$9610
- 313) 14 of those that Stephen called, agreed to donate money. This amounted to 10% of those that he called. How many people did he call? 313) _____
 A) 1400 B) 190 C) 130 D) 140
- 314) It is determined that 75% of the student body of Piper School attended an after-school assembly. If 117 students attended the assembly, how many students are enrolled at the school? 314) _____
 A) 168 B) 160 C) 153 D) 156
- 315) A company's profit amounted to 5% of its sales. If the profits were \$6 million, then what were the company's sales? 315) _____
 A) \$118 million B) \$120 million C) \$122 million D) \$121 million
- 316) The appliance store where the Scott family shops offers a 7% discount for paying cash. The Scott family received a discount of \$48. What was their total bill before the discount? 316) _____
 A) \$685.71 B) \$6.86 C) \$3.36 D) \$336.00

Solve.

- 317) On a biology test, a student got 25 questions correct but did not pass. On a second attempt, the student got 35 questions correct. What was the percent of increase? 317) _____
A) 10% B) 40% C) 60% D) 28.6%
- 318) Sales of frozen pizza for a club fund-raiser increased from 500 one year to 560 the next year. What was the percent of increase? 318) _____
A) 89.3% B) 10.7% C) 12% D) 88%
- 319) Enrollment in a business seminar increased from 68 people to 82 people. What was the percent of increase? 319) _____
A) 17.1% B) 79.4% C) 82.9% D) 20.6%
- 320) Last year, Maria earned \$306 per week. This year, her salary increased to \$332 per week. What is the percent of increase? 320) _____
A) 92.2% B) 8.5% C) 7.8% D) 91.5%
- 321) A rectangular garden has vegetables planted in a 35-ft by 20-ft area. The vegetables are surrounded by a 2-ft border of flowers. By what percent is the area for planting vegetables increased if the 2-ft border of flowers is removed? 321) _____
A) 33.7% B) 11.9% C) 13% D) 34.8%
- 322) The population of a city increased from 893,102 in 1995 to 1,541,844 in 2005. What is the percent of increase? Round your answer to the nearest tenth of a percent. 322) _____
A) 72.6% B) 42.1% C) 4.2% D) 7.3%
- 323) Tamiko, who doesn't smoke, pays an annual premium of \$555 for her life insurance policy. Her twin sister Yoko, who is a smoker, pays an annual premium of \$1070 for the same policy. What is the percent of increase for Yoko? Round to the nearest percentage point. 323) _____
A) 90.0% B) 92.8% C) 48.1% D) 9.3%
- 324) By switching service providers, a family's telephone bill decreased from about \$50 a month to about \$43. What was the percent of decrease? 324) _____
A) 14% B) 7% C) 16.3% D) 15%
- 325) The price of a printer was reduced from \$400 to \$300. What was the percent of decrease? 325) _____
A) 25% B) 33.3% C) 30% D) 75%
- 326) The price of a jacket was reduced from \$170 to \$102.00. What was the percent of decrease in the price? 326) _____
A) 4% B) 40% C) 42% D) 41%
- 327) The price of a shirt was reduced from \$25.20 to \$18.27. What was the percent of decrease in the price? 327) _____
A) 2.75% B) 28.5% C) 29.5% D) 27.5%

- 328) Ms. Lembke was not able to sell her house for \$130,000, so she lowered the price to \$120,000. What was the percent of decrease? 328) _____
 A) 8.3% B) 92.3% C) 1200% D) 7.7%
- 329) All 37 of the students in a mathematics class attended class on Monday. On Tuesday only 26 students attended. What was the percent of decrease? 329) _____
 A) 42.3% B) 70.3% C) 29.7% D) 57.7%
- 330) A carpeted living room and dining room area measures 35 ft by 12 ft. Mark decides to install wood flooring in the 14-ft by 12-ft dining room. By what percent has he reduced the area that is carpeted? 330) _____
 A) 60% B) 66.7% C) 12% D) 40%
- 331) The population of a city decreased from 1,127,000 in 1995 to 936,000 in 2005. What is the percent of decrease? Round your answer to the nearest tenth of a percent. 331) _____
 A) 1.7% B) 17.5% C) 20.4% D) 16.9%
- Solve the problem.
- 332) The normal gasoline mileage of a car is 21 mpg. On a smooth road, its mileage is 12% higher. What is its mileage on a smooth road? Round your answer to the nearest tenth. 332) _____
 A) 50 mpg B) 21 mpg C) 2.5 mpg D) 23.5 mpg
- 333) After receiving poor service at a restaurant, Anita decides to leave a tip of only 12%. If the cost of the meal without tip is \$33, what is the total amount that Anita paid? 333) _____
 A) \$37.95 B) \$39.15 C) \$37.13 D) \$36.96
- 334) Ted pays an annual premium of \$573 for his life insurance policy. His brother Ned pays 21% more for the same policy because he is a little older. What is Ned's annual premium? Round your answer to the nearest dollar. 334) _____
 A) \$588 B) \$320 C) \$678 D) \$693
- 335) After spending \$2950 for tables and \$2350 for chairs a convention center manager finds that the furniture cost 4% more than last year. Find the amount that he spent last year on tables and chairs. Round your answer to the nearest dollar. 335) _____
 A) \$5521 B) \$5096 C) \$2448 D) \$212
- 336) Brand X copier has improved its copier so that it produces 20% more copies than its old model. If the old model ran 572 copies per hour, how many copies would the new model run? Round your answer to the nearest whole number. 336) _____
 A) 587 copies per hour B) 671 copies per hour
 C) 686 copies per hour D) 318 copies per hour

- 337) Suppose that during the 1990s, the population of a certain country was increasing by 1.1% each year. If the population at the end of 1993 was 6.2 million, what was the population at the end of 1997? Round your answer to the nearest hundredth of a million. 337) _____
A) 6.41 million B) 6.47 million C) 6.48 million D) 6.27 million
- 338) A camera costs \$540. If the sales tax rate is 5%, what is the total price including tax? Round your answer to the nearest cent. 338) _____
A) \$561.60 B) \$810.00 C) \$567.00 D) \$572.40
- 339) Jeff earns \$443 per day. If his salary is raised by 2%, how much will he make per day? 339) _____
A) \$447.43 B) \$451.86 C) \$531.60 D) \$456.29
- 340) Jack is currently driving into a headwind (17% decrease). If his normal mileage is 50 mpg, what will his car's mileage be in the headwind? Round your answer to the nearest tenth. 340) _____
A) 41.5 mpg B) 50 mpg C) 67 mpg D) 7.3 mpg
- 341) Midtown Antiques has found that sales have decreased 6% from last year. Sales this year are \$124,978. Find the amount of last year's sales. Round your answer to the nearest dollar. 341) _____
A) \$132,855 B) \$133,955 C) \$132,945 D) \$132,955
- 342) After receiving a discount of 7.5% on its bulk order of printer cartridges, John's Office Supply pays \$6475. What was the price of the order before the discount? 342) _____
A) \$6961 B) \$7000 C) \$6313 D) \$5989
- 343) Mike buys a bike for \$3500. In the first month after he buys it, it depreciates by 9%. What is the value of the bike after 1 month? 343) _____
A) \$3185 B) \$3815 C) \$315 D) \$3491
- 344) Sue buys a house for \$416,000. What is the value of the house 1 year later, if it depreciates by 3.7% in the first year after she buys it? 344) _____
A) \$153,920 B) \$15,392 C) \$400,608 D) \$262,080
- 345) Angela bought a computer for \$2400. It depreciated 23% of its original cost in the first year. In the second year, it depreciated 11% of its remaining value. What is the value of the computer at the end of the second year? Round your answer to the nearest cent. 345) _____
A) \$1422.96 B) \$1584.00 C) \$2051.28 D) \$1644.72
- 346) The population of a city at the beginning of 2005 is 1,259,000. What will the population of the city be at the beginning of 2015 if it decreases by 2.4% each year? Round to the nearest whole number. 346) _____
A) 987,470 B) 956,840 C) 963,771 D) 1,011,752
- 347) One year ago, Tony and May bought a house. In the year since they bought the house, it has depreciated 2% from the amount they paid. Today it is valued at \$159,462. How much did they pay for the house? 347) _____
A) \$162,616 B) \$162,716 C) \$162,706 D) \$163,716

Fill in missing table value.

- 348) The following table provides data showing how yearly premiums for car insurance increase with an accident on record. 348) _____

Age	Rate for Perfect Record	Rate for Accident on Record	Percent Increase for Accident on Record
25	\$700	\$1450	

A)

Age	Rate for Perfect Record	Rate for Accident on Record	Percent Increase for Accident on Record
25	\$700	\$1450	107%

B)

Age	Rate for Perfect Record	Rate for Accident on Record	Percent Increase for Accident on Record
25	\$700	\$1450	92%

C)

Age	Rate for Perfect Record	Rate for Accident on Record	Percent Increase for Accident on Record
25	\$700	\$1450	48%

D)

Age	Rate for Perfect Record	Rate for Accident on Record	Percent Increase for Accident on Record
25	\$700	\$1450	207%

- 349) The following table provides data showing how yearly premiums for car insurance increase with an accident on record. 349) _____

Age	Rate for Perfect Record	Rate for Accident on Record	Percent Increase for Accident on Record
20	\$650		90%

A)

Age	Rate for Perfect Record	Rate for Accident on Record	Percent Increase for Accident on Record
20	\$650	\$1235	90%

B)

Age	Rate for Perfect Record	Rate for Accident on Record	Percent Increase for Accident on Record
20	\$650	\$1200	90%

C)

Age	Rate for Perfect Record	Rate for Accident on Record	Percent Increase for Accident on Record
20	\$650	\$600	90%

D)

Age	Rate for Perfect Record	Rate for Accident on Record	Percent Increase for Accident on Record
20	\$650	\$585	90%

- 350) The following table provides data showing how yearly premiums for car insurance increase with an accident on record.

350) _____

Age	Rate for Perfect Record	Rate for Accident on Record	Percent Increase for Accident on Record
20		\$1540	120%

A)

Age	Rate for Perfect Record	Rate for Accident on Record	Percent Increase for Accident on Record
20	\$1848	\$1540	120%

B)

Age	Rate for Perfect Record	Rate for Accident on Record	Percent Increase for Accident on Record
20	\$700	\$1540	120%

C)

Age	Rate for Perfect Record	Rate for Accident on Record	Percent Increase for Accident on Record
20	\$1800	\$1540	120%

D)

Age	Rate for Perfect Record	Rate for Accident on Record	Percent Increase for Accident on Record
20	\$750	\$1540	120%

Solve the problem.

- 351) A camera costs \$240. If the sales tax rate is 4%, how much tax is charged? Round your answer to the nearest cent.

351) _____

A) \$12.00

B) \$96.00

C) \$9.60

D) \$7.20

- 352) A camera costs \$350. If the sales tax rate is 8%, how much tax is charged and what is the total price? Round your answers to the nearest cent.

352) _____

A) \$31.50, \$381.50

B) \$280.00, \$630.00

C) \$24.50, \$374.50

D) \$28.00, \$378.00

- 353) A telephone costs \$349. If the sales tax rate is 9%, how much tax is charged and what is the total price? Round your answers to the nearest cent.

353) _____

A) \$31.41, \$380.41

B) \$34.90, \$383.90

C) \$27.92, \$376.92

D) \$314.10, \$663.10

- 354) A sweater costs \$38.59. If the sales tax rate is 6.9%, how much tax is charged? Round your answer to the nearest cent.

354) _____

A) \$3.43

B) \$26.73

C) \$2.66

D) \$3.16

- 355) A computer printer costs \$820. If the sales tax rate is $3\frac{1}{2}\%$, how much tax is charged and what is the total price? Round your answers to the nearest cent.

355) _____

A) \$36.90, \$856.90

B) \$287.00, \$1107.00

C) \$20.50, \$840.50

D) \$28.70, \$848.70

- 356) The sales tax rate in one state is 5.75%. How much tax will be charged on a purchase of 6 chairs at \$63 apiece? Round your answer to the nearest cent. 356) _____
 A) \$217.35 B) \$66.62 C) \$3.62 D) \$21.74
- 357) In Amy's state, the sales tax rate is 1.5% for the city and 5.75% for the state. Find the total amount paid for 4 chairs at \$79 each. 357) _____
 A) \$339.70 B) \$84.73 C) \$338.91 D) \$334.17
- 358) In Jameel's state, the sales tax rate is 1.75% for the city and 5% for the state. Find the total amount paid for 6 DVD players at \$149 each. 358) _____
 A) \$954.35 B) \$940.26 C) \$952.11 D) \$1497.45
- 359) A kitchen table costs \$980. The sales tax is \$58.80. What is the sales tax rate? 359) _____
 A) 8% B) 7% C) 0.6% D) 6%
- 360) A set of chairs costs \$129. The sales tax is \$2.58. What is the sales tax rate? 360) _____
 A) 0.2% B) 3% C) 4% D) 2%
- 361) A picture costs \$370. The sales tax is \$14.80. What is the sales tax rate? 361) _____
 A) 6% B) 0.4% C) 5% D) 4%
- 362) The sales tax on a freezer is \$33.12 and the sales tax rate is 3%. Find the purchase price (the price before taxes are added). Round your answer to the nearest cent. 362) _____
 A) \$1104.00 B) \$110.40 C) \$1656.00 D) \$828.00
- 363) The sales tax on a freezer is \$11.07 and the sales tax rate is 3%. Find the purchase price (the price before taxes are added) and the total price paid. Round your answers to the nearest cent. 363) _____
 A) \$36.90, \$47.97 B) \$276.75, \$287.82
 C) \$553.50, \$564.57 D) \$369.00, \$380.07
- 364) The total price (including sales tax) of a VCR is \$565.01. The sales tax rate is 2%. What is the purchase price of the VCR (the price before taxes are added)? Round your answer to the nearest cent. 364) _____
 A) \$559.42 B) \$553.93 C) \$470.84 D) \$548.55
- 365) What is the commission from the sale of \$470 worth of books, if the commission rate is 6%? Round your answer to the nearest cent. 365) _____
 A) \$28.20 B) \$282.00 C) \$32.90 D) \$23.5
- 366) Ellen sells \$570 worth of clothes and earns \$51.30 in commission. What is the commission rate? 366) _____
 A) 9% B) 10% C) 11% D) 0.9%

- 367) The price of a necklace is \$10.99. If the salesperson's rate of commission is 8%, how much commission is earned on the sale of the necklace? Round to the nearest cent. 367) _____
 A) \$0.88 B) \$8.89 C) \$0.89 D) \$8.79
- 368) A customer purchased 3 bottles of nail polish for \$2.70 each. How much does a salesperson earn on this sale if the rate of commission is 44%? Round to the nearest cent. 368) _____
 A) \$8.10 B) \$1.19 C) \$3.57 D) \$35.64
- 369) A salesman earns a commission of 21%. One week he had sales of \$1670. Find his wages for the week. 369) _____
 A) \$3507.00 B) \$35.07 C) \$350.70 D) \$35,070.00
- 370) One of Sal's customers ordered items costing \$5.87, \$13.87, \$19.75, and \$23.80. If Sal's commission on each item is 30%, what is his total commission on this sale? Round to the nearest cent. 370) _____
 A) \$13.06 B) \$11.85 C) \$17.23 D) \$18.99
- 371) Robert receives a commission of \$130 on sales of \$2600. What is his commission rate? 371) _____
 A) 10% B) 4% C) 6% D) 5%
- 372) A real estate agent's commission rate is 19%. He receives a commission of \$28,671 on the sale of a home. How much did the home sell for? 372) _____
 A) \$122,229 B) \$150,900 C) \$34,118 D) \$179,571
- 373) Stephanie receives a salary of \$650 per month plus a commission of 5.5% on the first \$3,000 of sales, and 7% of all sales over \$3,000. Find Stephanie's wages for the month if her sales were \$9800. 373) _____
 A) \$1501.00 B) \$1291.00 C) \$641.00 D) \$2776.00
- 374) Jason is paid \$500 per month plus a commission of 4% of the first \$2,500 of his sales, and 6% of his sales over \$2,500. Last month his sales totaled \$15,750. Find Jason's wages for the month. 374) _____
 A) \$3020.00 B) \$2075.00 C) \$1395.00 D) \$1545.00

Find the missing values.

- 375)

Marked Price	Rate of Discount	Discount	Sale Price
\$450	25%		

 375) _____
 A) \$112.50, \$337.50 B) \$117.00, \$333.00
 C) \$108.00, \$342.00 D) \$56.25, \$393.75
- 376)

Marked Price	Rate of Discount	Discount	Sale Price
\$310	30%		

 376) _____
 A) \$93.00, \$217.00 B) \$46.50, \$263.50
 C) \$96.10, \$213.90 D) \$89.90, \$220.10
- 377)

Marked Price	Rate of Discount	Discount	Sale Price
\$89.60	40%		

 377) _____
 A) \$36.74, \$52.86 B) \$17.92, \$71.68 C) \$35.84, \$53.76 D) \$34.94, \$54.66

- 378)

Marked Price	Rate of Discount	Discount	Sale Price
\$90		\$18.00	

 378) _____
 A) 2%, \$72.00 B) 20%, \$72.00 C) 22%, \$72.00 D) 21%, \$72.00
- 379)

Marked Price	Rate of Discount	Discount	Sale Price
\$109		\$10.90	

 379) _____
 A) 10%, \$98.10 B) 12%, \$98.10 C) 1%, \$98.10 D) 11%, \$98.10
- 380)

Marked Price	Rate of Discount	Discount	Sale Price
\$83.20		\$39.52	

 380) _____
 A) 47.5%, \$43.68 B) 4.75%, \$43.68 C) 49.5%, \$43.68 D) 48.5%, \$43.68
- 381)

Marked Price	Rate of Discount	Discount	Sale Price
	17%	\$18.19	

 381) _____
 A) \$88.81; \$36.38 B) \$309.23; \$291.04
 C) \$3.09; \$15.10 D) \$107; \$88.81

Solve the problem.

- 382) In a sale, the price of a computer is reduced from \$1400 to \$961. Find the discount and the rate of discount. Round the discount rate to the nearest tenth of a percent if necessary. 382) _____
 A) \$429; 30.6% B) \$429; 44.6% C) \$439; 31.4% D) \$439; 45.7%
- 383) In a sale, the price of a computer is reduced by \$247. The sale price is \$1433. Find the marked price (original price) and the rate of discount. Round the discount rate to the nearest tenth of a percent if necessary. 383) _____
 A) \$1680; 14.7% B) \$1186; 17.2% C) \$1680; 17.2% D) \$1186; 20.8%
- 384) Bathing suits are often on sale in July. The regular price of one suit is \$38. With a 20% discount, what is the sale price of the suit? 384) _____
 A) \$7.60 B) \$31.40 C) \$30.40 D) \$29.40
- 385) Bicycles are often on sale in September. The regular price of one bicycle is \$221.95. With a 25% discount, what is the sale price of the bicycle? Round to the nearest cent. 385) _____
 A) \$166.46 B) \$54.99 C) \$55.49 D) \$165.96
- 386) The regular price of a blanket is \$44.00. During a November sale, the blanket was selling for 25% off the regular price. What was the sale price of the blanket? Round to the nearest cent. 386) _____
 A) \$11.00 B) \$32.50 C) \$10.50 D) \$33.00
- 387) The regular price of a ring is \$495.50. During a May jewelry sale, the ring was discounted 30%. What was the sale price of the ring? 387) _____
 A) \$347.85 B) \$149.65 C) \$148.65 D) \$346.85

- 388) The regular price of a double roll of wallpaper is \$30. During a May sale, wallpaper was discounted 35%. What was the sale price of a double roll of wallpaper? 388) _____
- A) \$19.50 B) \$11.50 C) \$20.50 D) \$10.50

Find the simple interest. Round your answer to the nearest cent.

- 389) Principal = \$300
Interest Rate = 4%
Time in years = 2 389) _____
- A) \$600.00 B) \$37.50 C) \$2.40 D) \$24.00

- 390) Principal = \$13,500
Interest Rate = 10%
Time in years = 7 390) _____
- A) \$9450.00 B) \$945.00 C) \$192.86 D) \$19,285.71

- 391) Principal = \$990
Interest Rate = $5\frac{3}{4}\%$
Time in years = 8 391) _____
- A) \$45.54 B) \$455.40 C) \$13.77 D) \$711.56

- 392) Principal = \$150
Interest Rate = 7%
Time in years = $5\frac{1}{4}$ 392) _____
- A) \$112.50 B) \$5.51 C) \$55.13 D) \$2.00

- 393) Principal = \$900
Interest Rate = 11.8%
Time in years = $\frac{3}{4}$ 393) _____
- A) \$106.20 B) \$7.97 C) \$79.65 D) \$796.50

- 394) Principal = \$3500
Interest Rate = $6\frac{1}{2}\%$
Time in years = 7 394) _____
- A) \$1751.75 B) \$1470.00 C) \$1592.50 D) \$15,925.00

- 395) Principal = \$71,400
Interest Rate = 7%
Time in months = 10 395) _____
- A) \$4165.00 B) \$499.80 C) \$416,500.00 D) \$49,980.00

396) Principal = \$900
Interest Rate = $3\frac{1}{4}\%$
Time in months = 21
A) \$51.19 B) \$614.25 C) \$23.63 D) \$511.88
396) _____

397) Principal = \$30,000
Interest Rate = $4\frac{3}{8}\%$
Time in years = 1
A) \$131.25 B) \$1312.50 C) \$1297.50 D) \$138.75
397) _____

398) Principal = \$60,000
Interest Rate = $5\frac{5}{8}\%$
Time in years = $\frac{3}{4}$
A) \$253.12 B) \$2553.75 C) \$3375.00 D) \$2531.25
398) _____

Solve the problem. Assume that simple interest is being calculated in each case. Round your answer to the nearest cent if necessary.

399) Annie's cafe borrows \$4000 at 5% for 220 days. Find the total amount that must be repaid after 220 days.
A) \$5205.48 B) \$4200.00 C) \$4012.05 D) \$4120.55
399) _____

400) John forgot to pay his \$368.00 income tax on time. The IRS charged a penalty of 13% for the 69 days the money was late. Find the penalty that was paid. (Use a 365 day year.)
A) \$377.04 B) \$9.04 C) \$1.83 D) \$8.91
400) _____

401) Allan borrowed \$4200 from his father to buy a car. He repaid him after 9 months with interest of 11% per year. Find the total amount he repaid.
A) \$4662.00 B) \$346.50 C) \$4508.00 D) \$4546.50
401) _____

402) Robert Hall opened a lawn service company. To pay for startup costs, he borrowed \$71,000 from a bank at 8% for 1 year. Find the interest.
A) \$568.00 B) \$5680.00 C) \$76,680.00 D) \$6390.00
402) _____

403) Rea placed \$12,000 in a one year - CD paying simple interest of 4.5% for one year. How much interest will Rea earn in one year?
A) \$12,540.00 B) \$5400.00 C) \$17,400.00 D) \$540.00
403) _____

404) Aubrey borrows \$3000 and agrees to pay it back in 9 years. If the simple interest rate is 9%, find the total amount she pays back.
A) \$24,300.00 B) \$2430.00 C) \$27,300.00 D) \$5430.00
404) _____

- 405) A company borrows \$48,000 for 7 years at a simple interest of 7.5% to buy software. Find the total amount paid on the loan. 405) _____
 A) \$252,000.00 B) \$73,200.00 C) \$50,520.00 D) \$25,200.00
- 406) Anita Tooms bought a new computer system. To pay for the system, she borrowed \$2550 from the credit union at $11\frac{2}{3}\%$ simple interest for 85 days. Find the interest owed. (Use a 365 day year.) 406) _____
 A) \$297.50 B) \$65.32 C) \$69.28 D) \$74.38
- 407) JME Technologies bought a new computer system. To pay for the system, they borrowed \$54,380 at $6\frac{1}{2}\%$ interest for 195 days. Find the interest owed. (Use a 365 day year.) 407) _____
 A) \$1888.40 B) \$1743.14 C) \$3534.70 D) \$883.68
- 408) John Lee's savings account has a balance of \$1010. After 9 months, what will the amount of interest be at 4.8% per year? 408) _____
 A) \$48.48 B) \$36.36 C) \$112.22 D) \$57.49
- Find the compound amount for the deposit. Round to the nearest cent.
- 409) \$7000 at 12% compounded annually for 5 years 409) _____
 A) \$10,360.00 B) \$12,336.39 C) \$11,200.00 D) \$11,014.64
- 410) \$11,000 at 8% compounded semiannually for 6 years 410) _____
 A) \$17,455.62 B) \$17,611.35 C) \$16,280.00 D) \$13,918.51
- 411) \$200 at 14% compounded quarterly for 2 years 411) _____
 A) \$256.00 B) \$263.36 C) \$259.92 D) \$214.25
- 412) \$1700 at 4% compounded annually for 20 years 412) _____
 A) \$3581.64 B) \$3060.00 C) \$2992.00 D) \$3724.87
- 413) \$7100 at 4.6% compounded annually for 3 years. 413) _____
 A) \$8499.34 B) \$8125.56 C) \$7426.60 D) \$8079.80
- 414) \$4400 at 9% compounded semiannually for 12 months. 414) _____
 A) \$4804.91 B) \$5227.64 C) \$4598.00 D) \$4796.00
- 415) \$1500 at $4\frac{1}{2}\%$ compounded annually for 4 years 415) _____
 A) \$1770.00 B) \$1788.78 C) \$2117.37 D) \$1567.50
- 416) \$14,000 at 5.1% compounded semiannually for 11 years. 416) _____
 A) \$24,196.80 B) \$24,361.98 C) \$24,447.09 D) \$18,468.02

- 417) \$17,000 at $5\frac{1}{2}\%$ compounded semiannually for 11 years. 417) _____
- A) \$18,057.26 B) \$22,911.26 C) \$31,003.24 D) \$30,878.00

Solve the problem. Round your answer to the nearest cent.

- 418) Brad invests \$4100 in an account paying 6% compounded monthly. How much is in the account after 6 months? 418) _____
- A) \$4221.21 B) \$4110.24 C) \$5815.93 D) \$4224.55
- 419) Brad invests \$7100 in an account paying 13% compounded quarterly. How much is in the account after 6 months? 419) _____
- A) \$7547.40 B) \$9065.99 C) \$7214.45 D) \$7569.00
- 420) John Lee's savings account has a balance of \$774. After 4 years, what will the amount of interest be at 4% compounded semiannually? 420) _____
- A) \$131.47 B) \$63.80 C) \$132.86 D) \$123.84
- 421) Andrea Gilford's savings account has a balance of \$919. After 6 years, what will the amount of interest be at 4% compounded quarterly? 421) _____
- A) \$247.89 B) \$252.89 C) \$18.38 D) \$238.89
- 422) If inflation is 3% a year compounded annually, what will it cost in 12 years to buy a house currently valued at \$75,000? 422) _____
- A) \$103,817.54 B) \$110,140.03 C) \$106,932.07 D) \$89,671.36
- 423) Sumi Kato's savings account has a balance of \$4241. After 21 years what will the amount of interest be at 3.5% compounded annually? 423) _____
- A) \$4498.92 B) \$4481.92 C) \$4492.92 D) \$8906.10
- 424) Kaitlyn borrowed \$12,000 from her mother to buy a car. She will repay the loan at the end of 6 years at 8% interest compounded annually. Find the amount she will repay. 424) _____
- A) \$19,042.49 B) \$20,946.74 C) \$77,760.00 D) \$7042.49
- 425) Tara invests \$250 in an account paying 8.7% compounded annually. How much is in the account after 7 years? 425) _____
- A) \$448.28 B) \$449.64 C) \$152.25 D) \$448.80

Solve the problem.

- 426) Hamlet has a credit card balance of \$4146.77 with an annual percentage rate of 21.9%. His card requires a minimum payment of 2% of the total balance. What is his minimum payment? 426) _____
- A) \$908.14 B) \$21.90 C) \$82.94 D) \$829.35

- 427) Cordelia has a credit card balance of \$5261.18 with an annual percentage rate of 13.6%. Her card requires a minimum payment of 2% of the total balance. If she pays only the minimum payment, what amount of the minimum payment is applied to the principal? (Assume that interest is compounded monthly.) 427) _____
 A) \$105.22 B) \$13.60 C) \$45.59 D) \$59.63
- 428) Eduardo has a balance of \$3265.96 on a credit card with an annual percentage rate (APR) of 12.6%. His credit card requires a minimum monthly payment of 2% of the balance. If he transfers his balance to a credit card with an APR of 8.5% how much of his first payment would be interest and how much would be applied to reduce the principal? 428) _____
 A) Interest: \$34.29; amount applied to principal: \$31.03
 B) Interest: \$23.13; amount applied to principal: \$47.51
 C) Interest: \$34.29; amount applied to principal: \$36.14
 D) Interest: \$23.13; amount applied to principal: \$42.19
- 429) Tom has a balance of \$4261.15 on a credit card with an annual percentage rate (APR) of 13.7%. His credit card requires a minimum monthly payment of 2% of the balance. If he transfers his balance to a credit card with an APR of 9.2% how much more of his first payment would be applied to reduce the principal than if he had not transferred his balance? 429) _____
 A) \$15.98 more will be applied to principal B) \$19.88 more will be applied to principal
 C) \$32.67 more will be applied to principal D) \$52.55 more will be applied to principal

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

Provide an appropriate response.

- 430) Fill in the blanks. 92% represents ___ parts out of ___ equal parts. 430) _____
- 431) Give five examples of the use of percent in sports or games. 431) _____
- 432) Select a decimal percent with three digits and write it as a fraction. Select a fraction with a two-digit denominator and write it as a percent. Explain each step of your work. 432) _____
- 433) Write a sentence or statement using words and numbers that includes a percent, a base, and an amount. Identify the parts. 433) _____
- 434) Give four examples of using percent of increase or percent of decrease in your own activities. 434) _____
- 435) Jessica wanted to solve the following problem: The price of an item increased by 15%. The amount of the increase was \$86. What was the price of the item before the increase? She wrote the following equation: $15\% \times 86 = x$. Do you think this equation will give her the correct answer? If not, what is the correct equation to use? Explain your thinking. 435) _____

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

- 436) Anne and Michael both put \$5000 in a savings account. Anne gets 8% compounded monthly. In Michael's account, the interest is compounded annually. Two years later the amount in Anne's account is exactly the same as the amount in Michael's account. What can you conclude about the interest rate for Michael's account? 436) _____
- A) It is less than 8%.
 - B) It is greater than 8%.
 - C) It is equal to 8%.
 - D) There is not enough information to determine whether it is greater or less than 8%.

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

- 437) The price of an item is reduced by 20% in a sale. Two weeks later the price is increased to 20% more than the sale price. Do you think that the item has been restored to its original price? If not, do you think its price is now higher or lower than the original price? Explain your thinking. 437) _____
- 438) Roberto is an employee of a store and receives 20% discount off all items in the store. During a sale, the price of a jacket is reduced by \$15. Roberto will receive both his 20% discount and the \$15 off. Which is better for Roberto, to take the 20% discount first and then subtract \$15 or to subtract \$15 first and then take his 20% discount? Explain your answer. 438) _____
- 439) Juan and Pete are on the same salary. Juan receives a 10% raise followed by an 8% raise a year later. Pete receives an 8% raise followed by a 10% raise a year later. After the two salary raises, whose salary is higher? Explain your answer. 439) _____

Answer Key

Testname: UNTITLED4

- 1) A
- 2) D
- 3) D
- 4) B
- 5) A
- 6) C
- 7) B
- 8) C
- 9) B
- 10) B
- 11) D
- 12) C
- 13) C
- 14) C
- 15) A
- 16) A
- 17) A
- 18) B
- 19) A
- 20) B
- 21) A
- 22) B
- 23) B
- 24) D
- 25) A
- 26) D
- 27) D
- 28) D
- 29) C
- 30) C
- 31) D
- 32) C
- 33) D
- 34) B
- 35) C
- 36) C
- 37) D
- 38) A
- 39) B
- 40) B
- 41) D
- 42) D

Answer Key

Testname: UNTITLED4

- 43) B
- 44) A
- 45) A
- 46) B
- 47) A
- 48) B
- 49) A
- 50) B
- 51) B
- 52) A
- 53) A
- 54) B
- 55) B
- 56) A
- 57) D
- 58) D
- 59) B
- 60) A
- 61) C
- 62) D
- 63) D
- 64) A
- 65) D
- 66) D
- 67) A
- 68) D
- 69) A
- 70) B
- 71) D
- 72) D
- 73) A
- 74) D
- 75) C
- 76) B
- 77) C
- 78) B
- 79) C
- 80) A
- 81) D
- 82) D
- 83) A
- 84) D

Answer Key

Testname: UNTITLED4

- 85) C
- 86) A
- 87) D
- 88) D
- 89) C
- 90) B
- 91) D
- 92) B
- 93) A
- 94) C
- 95) C
- 96) D
- 97) A
- 98) A
- 99) A
- 100) C
- 101) C
- 102) B
- 103) D
- 104) D
- 105) D
- 106) A
- 107) C
- 108) D
- 109) A
- 110) A
- 111) B
- 112) C
- 113) B
- 114) C
- 115) A
- 116) C
- 117) C
- 118) D
- 119) C
- 120) D
- 121) D
- 122) C
- 123) C
- 124) D
- 125) B
- 126) D

Answer Key

Testname: UNTITLED4

- 127) A
- 128) C
- 129) B
- 130) A
- 131) D
- 132) B
- 133) B
- 134) C
- 135) A
- 136) B
- 137) B
- 138) B
- 139) A
- 140) C
- 141) A
- 142) C
- 143) D
- 144) C
- 145) C
- 146) C
- 147) C
- 148) B
- 149) D
- 150) B
- 151) A
- 152) D
- 153) C
- 154) A
- 155) D
- 156) A
- 157) D
- 158) B
- 159) D
- 160) C
- 161) A
- 162) B
- 163) B
- 164) B
- 165) B
- 166) B
- 167) D
- 168) D

Answer Key

Testname: UNTITLED4

- 169) C
- 170) C
- 171) C
- 172) A
- 173) B
- 174) B
- 175) B
- 176) C
- 177) B
- 178) A
- 179) D
- 180) C
- 181) A
- 182) B
- 183) A
- 184) B
- 185) C
- 186) D
- 187) C
- 188) D
- 189) C
- 190) C
- 191) B
- 192) B
- 193) B
- 194) A
- 195) C
- 196) A
- 197) C
- 198) C
- 199) D
- 200) A
- 201) D
- 202) B
- 203) A
- 204) D
- 205) C
- 206) A
- 207) C
- 208) C
- 209) D
- 210) D

Answer Key

Testname: UNTITLED4

- 211) C
- 212) A
- 213) C
- 214) D
- 215) C
- 216) D
- 217) D
- 218) D
- 219) D
- 220) B
- 221) C
- 222) B
- 223) D
- 224) D
- 225) D
- 226) A
- 227) B
- 228) B
- 229) C
- 230) D
- 231) D
- 232) C
- 233) B
- 234) B
- 235) D
- 236) C
- 237) D
- 238) B
- 239) B
- 240) D
- 241) B
- 242) B
- 243) C
- 244) B
- 245) C
- 246) C
- 247) A
- 248) A
- 249) C
- 250) A
- 251) D
- 252) B

Answer Key

Testname: UNTITLED4

- 253) A
- 254) D
- 255) C
- 256) A
- 257) D
- 258) D
- 259) C
- 260) B
- 261) C
- 262) A
- 263) C
- 264) B
- 265) A
- 266) B
- 267) B
- 268) B
- 269) D
- 270) C
- 271) B
- 272) D
- 273) C
- 274) A
- 275) B
- 276) A
- 277) C
- 278) A
- 279) A
- 280) D
- 281) D
- 282) A
- 283) D
- 284) B
- 285) A
- 286) C
- 287) A
- 288) C
- 289) B
- 290) A
- 291) A
- 292) B
- 293) D
- 294) D

Answer Key

Testname: UNTITLED4

- 295) C
- 296) A
- 297) C
- 298) D
- 299) C
- 300) B
- 301) A
- 302) D
- 303) C
- 304) D
- 305) A
- 306) B
- 307) D
- 308) A
- 309) D
- 310) C
- 311) A
- 312) A
- 313) D
- 314) D
- 315) B
- 316) A
- 317) B
- 318) C
- 319) D
- 320) B
- 321) A
- 322) A
- 323) B
- 324) A
- 325) A
- 326) B
- 327) D
- 328) D
- 329) C
- 330) D
- 331) D
- 332) D
- 333) D
- 334) D
- 335) B
- 336) C

Answer Key

Testname: UNTITLED4

- 337) C
- 338) C
- 339) B
- 340) A
- 341) D
- 342) B
- 343) A
- 344) C
- 345) D
- 346) A
- 347) B
- 348) A
- 349) A
- 350) B
- 351) C
- 352) D
- 353) A
- 354) C
- 355) D
- 356) D
- 357) C
- 358) A
- 359) D
- 360) D
- 361) D
- 362) A
- 363) D
- 364) B
- 365) A
- 366) A
- 367) A
- 368) C
- 369) C
- 370) D
- 371) D
- 372) B
- 373) B
- 374) C
- 375) A
- 376) A
- 377) C
- 378) B

Answer Key

Testname: UNTITLED4

- 379) A
- 380) A
- 381) D
- 382) C
- 383) A
- 384) C
- 385) A
- 386) D
- 387) D
- 388) A
- 389) D
- 390) A
- 391) B
- 392) C
- 393) C
- 394) C
- 395) A
- 396) A
- 397) B
- 398) D
- 399) D
- 400) B
- 401) D
- 402) B
- 403) D
- 404) D
- 405) B
- 406) C
- 407) A
- 408) B
- 409) B
- 410) B
- 411) B
- 412) D
- 413) B
- 414) A
- 415) B
- 416) B
- 417) D
- 418) D
- 419) D
- 420) C

Answer Key

Testname: UNTITLED4

421) A

422) C

423) C

424) A

425) A

426) C

427) C

428) D

429) A

430) 92, 100

431) Answers will vary. Possible Answer: field goal or free throw percentages in basketball, the batting average or percentage in baseball, completion percentage in football, save percentage in hockey

432) Answers will vary. Possible Answer:

$$35\% = \frac{35}{100} \quad \text{Use the definition of percent.}$$

$$= \frac{7 \cdot 5}{20 \cdot 5} \quad \text{Simplify.}$$

$$= \frac{7}{20} \quad \text{Simplify.}$$

$$35\% = \frac{7}{20}$$

$$\frac{8}{128}$$

$$\begin{array}{r} 0.0625 \\ 128 \overline{) 8.0000} \end{array} \quad \text{Find decimal notation by division.}$$

$$0.0625 = 6.25\% \quad \text{Convert the decimal notation to percent notation.}$$

$$\frac{8}{128} = 6.25\%$$

433) Answers will vary. Possible Answer: \$5 is 25 percent of \$20. \$5 is the amount, 25 is the percent and \$20 is the base.

Answer Key

Testname: UNTITLED4

434) Answers will vary. Possible Answer:

A sofa was on sale for \$50 off the original price of \$500. $\frac{50}{500} = 10$, so the \$50 amount represents a 10% decrease from the original price. The percent of decrease is 10%.

A DVD's price increased from \$19.99 to 21.99. $21.99 - 19.99 = 2$, so \$2 is the amount of increase. $\frac{2}{19.99} \approx 0.100$ so the \$2 increase was about a 10% increase from the original price. The percent of increase is about 10%.

My math test score on November 1 was 87 points. My math test score on November 8 was 92 points. The amount of increase was $92 - 87 = 5$ points. $\frac{5}{87} \approx 0.057$ so this means I had about a 6% better score on November 8 than on November 1. The percent increase was about 6%.

I used to walk 3.5 miles per day, but now I'm down to only 2 miles per day because I have to study more. $3.5 - 2 = 1.5$, so the amount of decrease is 1.5. $\frac{1.5}{3.5} \approx 0.428$, so the 1.5 mile decrease is about a 42.8% decrease from original rate of 3.5 miles per day. The percent decrease is about 42.8%.

435) Answers will vary. The equation is not correct. The correct equation is $15\% \times x = 86$.

436) B

437) Answers will vary. Possible answer: The item has not been restored to its original price. Its price is now lower than the original price. The amount of the increase was less than the amount of the discount because 20% of the sale price is a smaller amount than 20% of the original price.

438) Answers will vary. It is better for Roberto to take his 20% discount first.

439) Answers will vary. The two salaries will be the same. $y \times 10\% \times 8\%$ is the same as $y \times 8\% \times 10\%$.