

Chapter 2 Integers and Algebraic Expressions

Review Your Skills

A. $12 - 10 - 1 + 4 = 2 - 1 + 4 = 1 + 4 = 5$

B. $22 - 3 \cdot 6 - 1 = 22 - 18 - 1 = 4 - 1 = 3$

C. $24 \div 8 \cdot 2 = 3 \cdot 2 = 6$

D. $2^2 = 4$

E. $32 \div 4 \div 2 = 8 \div 2 = 4$

F.
$$\begin{aligned} 9^2 - 4(30 - 2 \cdot 5) &= 9^2 - 4(30 - 10) \\ &= 9^2 - 4(20) \\ &= 81 - 4(20) \\ &= 81 - 80 \\ &= 1 \end{aligned}$$

G. $13 - 8 \div 2 \cdot 3 = 13 - 4 \cdot 3 = 13 - 12 = 1$

H. $\sqrt{16 - 3 \cdot 4} = \sqrt{16 - 12} = \sqrt{4} = 2$

I. $\sqrt{10^2 - 8^2} = \sqrt{100 - 64} = \sqrt{36} = 6$

J. $50 \div 2 \div 5 = 25 \div 5 = 5$

K. $18 \div 9 \cdot 3 = 2 \cdot 3 = 6$

L. $\frac{50 - 40}{5 - 3} = \frac{10}{2} = 5$

M. $\sqrt{5^2 - 3^2} = \sqrt{25 - 9} = \sqrt{16} = 4$

1	A ₅	2	B ₃	6	4
C ₆	3	D ₄	2	5	1
E ₄	2	3	5	F ₁	6
5	G ₁	6	4	3	H ₂
3	4	1	I ₆	2	J ₅
2	K ₆	L ₅	1	M ₄	3

Section 2.1 Integers, Absolute Value, and Opposite

Section 2.1 Practice Exercises

1. (a) positive; negative

(b) integers

(c) absolute

(d) opposites

2. -340 ft

3. -86 m

4. -\$45

5. \$3800

6. 5

7. -\$500

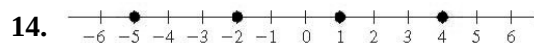
8. \$23

9. -14 lb

10. -2000 ft

11. 1,400,000

12. -\$20,000



15. -2

16. 8

17. $0 > -3$

18. $-1 < 0$

19. $-8 > -9$

20. $-5 < -2$

21. $8 < 9$

22. $5 > 2$

23. $-226 < 198$

24. $408 > -416$

25. $|-2| = 2$

26. $|-9| = 9$

27. $|2| = 2$

28. $|9| = 9$

29. $|-427| = 427$

30. $|-615| = 615$

31. $|100,000| = 100,000$

32. $|64,000| = 64,000$

33. (a) -8

(b) $|-12|$

34. (a) -14

(b) $|-20|$

35. (a) 7

(b) $|7|$

36. (a) 4

(b) $|4|$

37. $|-5|$

38. $|-9|$

39. Neither, they are equal.

40. Neither, they are equal.

41. -5

42. -31

43. 12

44. 25

45. 0

46. -1

47. 1

48. 612

49. $-(-15) = 15$

50. $-(-4) = 4$

51. $-|-15| = -(15) = -15$

52. $-|-4| = -(4) = -4$

53. $-|15| = -(15) = -15$

54. $-|4| = -(4) = -4$

55. $|-15| = 15$

56. $|-4| = 4$

57. $-(-36) = 36$

58. $-(-19) = 19$

59. $-|-107| = -(107) = -107$

60. $-|-26| = -(26) = -26$

61. (a) $|-6| = 6$

- (b) $-(-6)=6$
 (c) $-|6|=- (6)=-6$
 (d) $|6|=6$
 (e) $-|-6|=- (6)=-6$
62. (a) $-(-12)=12$
 (b) $|12|=12$
 (c) $|-12|=12$
 (d) $-|-12|=- (12)=-12$
 (e) $-|12|=- (12)=-12$
63. (a) $-|8|=- (8)=-8$
 (b) $|8|=8$
 (c) $-|-8|=- (8)=-8$
 (d) $-(-8)=8$
 (e) $|-8|=8$
64. (a) $-|-1|=- (1)=-1$
 (b) $-(-1)=1$
 (c) $|1|=1$
 (d) $|-1|=1$
 (e) $-|1|=- (1)=-1$
65. -6
 66. -23
 67. $-(-2)$
 68. $-(-9)$
 69. $|7|$
 70. $|11|$
 71. $|-3|$
72. $|-10|$
 73. $-|14|$
 74. $-|42|$
 75. $|-12|=12$; $|12|=12$; so $|-12|=|12|$
 76. $-(-4)=4$; $-|-4|=-4$;
 so $-(-4)>-|-4|$
 77. $|-22|=22$; $-(22)=-22$;
 so $|-22|>-(22)$
 78. $-8>-10$
 79. $-44>-54$
 80. $-|0|=0$; $-|1|=-1$; so $-|0|>-|1|$
 81. $|-55|=55$; $-(-65)=65$;
 so $|-55|<-(-65)$
 82. $-(82)=-82$; $|46|=46$;
 so $-(82)<|46|$
 83. $-|32|=-32$; $|0|=0$; so $-|32|<|0|$
 84. $-|22|=-22$; $0=0$; so $-|22|<0$
 85. Portland is between 20° and 30° ; about 25°F
 86. Atlanta is between 40° and 50° ; about 42°F
 87. Bismark is between -20° and -30° ; about -22°F
 88. Denver is between 0° and -10° ; about -8°F
 89. Eugene is between 0° and -10° ; about -2°F
 90. Orlando is about 50°F
 91. Dallas is between 40° and 50° ; about 44°F
 92. June is the greatest amount below average;
 -6 in.

93. September is the greatest amount above average.

94. August had the average amount of rainfall.

$$-|-46| = -46$$

$$-(-24) = 24$$

$$-60$$

95. $5^2 = 25$

$$|-12| = 12$$

$$-60, -|-46|, |-12|, -(-24), 5^2$$

$$-15$$

$$-(-18) = 18$$

$$-|20| = -20$$

96. $4^2 = 16$

$$|-3|^2 = 3^2 = 9$$

$$-|20|, -15, |-3|^2, 4^2, -(-18)$$

97. Positive

98. Positive

99. Negative

100. Negative

Section 2.2 Addition of Integers

Section 2.2 Practice Exercises

1.(a) 0

(b) negative; positive

(c) To find the sum of two numbers with different signs, subtract the smaller absolute value from the larger absolute value. The sum takes the sign of the addend with the greater absolute value.

2. $-6 < -5$

3. $-33 > -44$

4. $|-4| = 4$; $-|4| = -4$; so $|-4| > -|4|$

5. $|6| = 6$; $|-6| = 6$; so $|6| = |-6|$

6. $0 > -6$

7. $-|-10| = -10$; $10 = 10$; so $-|-10| < 10$

8. $-(-2) = 2$; $2 = 2$; so $-(-2) = 2$

9. $-3 + 5 = 2$

10. $-6 + 3 = -3$

11. $2 + (-4) = -2$

12. $5 + (-1) = 4$

13. $-4 + (-4) = -8$

14. $-2 + (-5) = -7$

15. $-3 + 9 = 6$

16. $-1 + 5 = 4$

17. $0 + (-7) = -7$

18. $(-5) + 0 = -5$

19. $-1 + (-3) = -4$

20. $-4 + (-3) = -7$

21. To add two numbers with the same sign, add their absolute values and apply the common sign.

22. $23 + 12 = 35$

23. $12 + 3 = 15$

24. $-8 + (-3) = -11$

$$25. -10 + (-6) = -16$$

$$26. -7 + (-9) = -16$$

$$27. -100 + (-24) = -124$$

$$28. 23 + 50 = 73$$

$$29. 44 + 45 = 89$$

30. To add two numbers with different signs, subtract the smaller absolute value from the larger absolute value. Then apply the sign of the number having the larger absolute value.

$$31. 7 + (-10) = -3$$

$$32. -8 + 2 = -6$$

$$33. 12 + (-7) = 5$$

$$34. -3 + 9 = 6$$

$$35. -90 + 66 = -24$$

$$36. -23 + 49 = 26$$

$$37. 78 + (-33) = 45$$

$$38. 10 + (-23) = -13$$

$$39. 2 + (-2) = 0$$

$$40. -6 + 6 = 0$$

$$41. -13 + 13 = 0$$

$$42. 45 + (-45) = 0$$

$$43. 12 + (-3) = 9$$

$$44. -33 + (-1) = -34$$

$$45. -23 + (-3) = -26$$

$$46. -5 + 15 = 10$$

$$47. 4 + (-45) = -41$$

$$48. -13 + (-12) = -25$$

$$49. (-103) + (-47) = -150$$

$$50. 119 + (-59) = 60$$

$$51. 0 + (-17) = -17$$

$$52. -29 + 0 = -29$$

$$53. -19 + (-22) = -41$$

$$54. -300 + (-24) = -324$$

$$55. -222 + 751 = 529$$

$$56. 620 + (-818) = -198$$

$$57. 1158 + (-378) = 780$$

$$58. -2022 + 997 = -1025$$

$$59. 6 + (-12) + 8 = -6 + 8 = 2$$

$$60. 20 + (-12) + (-5) = 8 + (-5) = 3$$

$$61. -33 + (-15) + 18 = -48 + 18 = -30$$

$$62. 3 + 5 + (-1) = 8 + (-1) = 7$$

$$63. 7 + (-3) + 6 = 4 + 6 = 10$$

$$64. 12 + (-6) + (-9) = 6 + (-9) = -3$$

$$65. -10 + (-3) + 5 = -13 + 5 = -8$$

$$\begin{aligned} & -23 + (-4) + (-12) + (-5) \\ & = -27 + (-12) + (-5) \\ & = -39 + (-5) \\ & = -44 \end{aligned}$$

$$67. -18 + (-5) + 23 = -23 + 23 = 0$$

$$\begin{aligned} & 14 + (-15) + 20 + (-42) = -1 + 20 + (-42) \\ & = 19 + (-42) \\ & = -23 \end{aligned}$$

$$\begin{aligned}
 &4 + (-12) + (-30) + 16 + 10 \\
 &= -8 + (-30) + 16 + 10 \\
 \text{69.} \quad &= -38 + 16 + 10 \\
 &= -22 + 10 \\
 &= -12
 \end{aligned}$$

$$\text{70. } 24 + (-5) + (-19) = 19 + (-19) = 0$$

$$\text{71. } -79 + (-356) + 244 = -435 + 244 = -191$$

72.

$$\begin{aligned}
 620 + (-949) + 758 &= 620 + 758 + (-949) \\
 &= 1378 + (-949) = 429
 \end{aligned}$$

$$\text{73. } -23 + 49 = 26$$

$$\text{74. } 89 + (-11) = 78$$

$$\text{75. } 3 + (-10) + 5 = -7 + 5 = -2$$

$$\begin{aligned}
 -2 + (-4) + 14 + 20 &= -6 + 14 + 20 \\
 \text{76.} \quad &= 8 + 20 \\
 &= 28
 \end{aligned}$$

$$\text{77. } (-8 + 6) + (-5) = -2 + (-5) = -7$$

$$\text{78. } (-25 + 7) + (-15) = -18 + (-15) = -33$$

$$\begin{aligned}
 -6 + (-1) + 10 + 6 + (-2) \\
 &= -7 + 10 + 6 + (-2) \\
 \text{79.} \quad &= 3 + 6 + (-2) \\
 &= 9 + (-2) \\
 &= 7 \text{ in.}
 \end{aligned}$$

Marquette had above average snowfall.

$$\begin{aligned}
 1 + (-3) + 2 + 5 + (-4) &= -2 + 2 + 5 + (-4) \\
 \text{80.} \quad &= 0 + 5 + (-4) \\
 &= 5 + (-4) \\
 &= 1 \text{ in.}
 \end{aligned}$$

Hilo had above average rainfall.

$$\begin{aligned}
 -5 + (-1) + (-5) + (-5) &= -6 + (-5) + (-5) \\
 \text{81.} \quad &= -11 + (-5) \\
 &= -16
 \end{aligned}$$

$$\begin{aligned}
 -6 + 3 + (-4) + (-2) &= -3 + (-4) + (-2) \\
 \text{82.} \quad &= -7 + (-2) \\
 &= -9
 \end{aligned}$$

$$\text{83. } -4 + 12 = 8^\circ \text{F}$$

$$\text{84. } -14 + 10 = -4^\circ \text{F}$$

$$\text{85. } -\$56 + \$389 = \$333$$

$$\text{86. } \$23 + (-\$40) = -\$17$$

$$\begin{aligned}
 -200 + (-400) + 1000 + (-400) + 600 \\
 &= -\$600 + \$1000 + (-\$400) + \$600 \\
 \text{87.} \quad &= \$400 + (-\$400) + \$600 \\
 &= \$0 + \$600 \\
 &= \$600
 \end{aligned}$$

$$\begin{aligned}
 3 + 2 + (-8) + 5 + (-2) + 4 + 21 \\
 &= 5 + (-8) + 5 + (-2) + 4 + 21 \\
 &= -3 + 5 + (-2) + 4 + 21 \\
 \text{88.} \quad &= 2 + (-2) + 4 + 21 \\
 &= 0 + 4 + 21 \\
 &= 4 + 21 \\
 &= 25 \text{ yd}
 \end{aligned}$$

$$\begin{aligned}
 0 + 2 + (-1) + (-1) + 0 + (-1) + 1 + 0 + 0 \\
 &= 2 + (-1) + (-1) + 0 + (-1) + 1 + 0 + 0 \\
 &= 1 + (-1) + 0 + (-1) + 1 + 0 + 0 \\
 &= 0 + 0 + (-1) + 1 + 0 + 0 \\
 \text{89.} \quad &= 0 + (-1) + 1 + 0 + 0 \\
 &= -1 + 1 + 0 + 0 \\
 &= 0 + 0 + 0 \\
 &= 0
 \end{aligned}$$

$$\begin{aligned}
 &1+1+0+0+(-1)+(-1)+0+0+2 \\
 &=2+0+0+(-1)+(-1)+0+0+2 \\
 &=2+(-1)+(-1)+0+0+2 \\
 &=1+(-1)+0+0+2 \\
 &=0+0+0+2 \\
 &=2
 \end{aligned}$$

91. For example: $-12+2$

92. For example: $-6+(-8)$

93. For example: $-1+(-1)$

94. For example: $5+(-5)$

95. $302+(-422)=-120$

96. $-900+334=-566$

97. $-23,991+(-4423)=-28,414$

98. $-1034+(-23,291)=-24,325$

$$\begin{aligned}
 &23+(-125)+912+(-99) \\
 &= -102+912+(-99) \\
 &= 810+(-99) \\
 &= 711
 \end{aligned}$$

100. $891+12+(-223)+(-341)$

$$\begin{aligned}
 &= 903+(-223)+(-341) \\
 &= 680+(-341) \\
 &= 339
 \end{aligned}$$

Section 2.3 Subtraction of Integers

Section 2.3 Practice Exercises

1. (a) $(-b)$

(b) $-5+4$

2. $34+(-13)=21$

3. $-34+(-13)=-47$

4. $-34+13=-21$

5. $-|-26|=- (26)=-26$

6. $-(-32)=32$

$$\begin{aligned}
 &-9+(-8)+5+(-3)+7 \\
 &= -17+5+(-3)+7 \\
 &= -12+(-3)+7 \\
 &= -15+7 \\
 &= -8
 \end{aligned}$$

8. To subtract two integers, add the opposite of the second number to the first number.

9. $2-9=2+(-9)=-7$

10. $5-11=5+(-11)=-6$

11. $4-(-3)=4+3=7$

12. $12-(-8)=12+8=20$

13. $-3-15=-3+(-15)=-18$

14. $-7-21=-7+(-21)=-28$

15. $-11-(-13)=-11+13=2$

16. $-23-(-9)=-23+9=-14$

17. $35-(-17)=35+17=52$

18. $23-(-12)=23+12=35$

19. $-24-9=-24+(-9)=-33$

20. $-5-15=-5+(-15)=-20$

21. $50-62=50+(-62)=-12$

22. $38 - 46 = 38 + (-46) = -8$
23. $-17 - (-25) = -17 + 25 = 8$
24. $-2 - (-66) = -2 + 66 = 64$
25. $-8 - (-8) = -8 + 8 = 0$
26. $-14 - (-14) = -14 + 14 = 0$
27. $120 - (-41) = 120 + 41 = 161$
28. $91 - (-62) = 91 + 62 = 153$
29. $-15 - 19 = -15 + (-19) = -34$
30. $-82 - 44 = -82 + (-44) = -126$
31. $3 - 25 = 3 + (-25) = -22$
32. $6 - 33 = 6 + (-33) = -27$
33. $-13 - 13 = -13 + (-13) = -26$
34. $-43 - 43 = -43 + (-43) = -86$
35. $24 - 25 = 24 + (-25) = -1$
36. $43 - 98 = 43 + (-98) = -55$
37. $-6 - (-38) = -6 + 38 = 32$
38. $-75 - (-21) = -75 + 21 = -54$
39. $-48 - (-33) = -48 + 33 = -15$
40. $-29 - (-32) = -29 + 32 = 3$
41. $-320 - (-198) = -320 + 198 = -122$
42. $444 - 576 = 444 + (-576) = -132$
43. $-1011 - (-2020) = -1011 + 2020 = 1009$
44. $987 - (-337) = 987 + 337 = 1324$

45. $300 - (-386) + 575 = 300 + 386 + 575 = 1261$
46. $-40 + 605 - 815 = -40 + 605 + -815$
 $= -40 + -815 + 605$
 $= -855 + 605 = -250$
47. $2 + 5 - (-3) - 10 = 2 + 5 + 3 + (-10)$
 $= 7 + 3 + (-10)$
 $= 10 + (-10)$
 $= 0$
48. $4 - 8 + 12 - (-1) = 4 + (-8) + 12 + 1$
 $= -4 + 12 + 1$
 $= 8 + 1$
 $= 9$
49. $-5 + 6 + (-7) - 4 - (-9)$
 $= -5 + 6 + (-7) + (-4) + 9$
 $= 1 + (-7) + (-4) + 9$
 $= -6 + (-4) + 9$
 $= -10 + 9$
 $= -1$
50. $-2 - 1 + (-11) + 6 - (-8)$
 $= -2 + (-1) + (-11) + 6 + 8$
 $= -3 + (-11) + 6 + 8$
 $= -14 + 6 + 8$
 $= -8 + 8$
 $= 0$
51. $25 - 13 - (-40) = 25 + (-13) + 40$
 $= 12 + 40$
 $= 52$
52. $-35 + 15 - (-28) = -35 + 15 + 28$
 $= -20 + 28$
 $= 8$
53. minus, difference, decreased, less than, subtract from
54. Subtraction is not commutative.
 $3 - 7 \neq 7 - 3$

55. $14 - 23 = 14 + (-23) = -9$

56. $27 - 40 = 27 + (-40) = -13$

57. $105 - 110 = 105 + (-110) = -5$

58. $70 - 98 = 70 + (-98) = -28$

59. $320 - (-20) = 320 + 20 = 340$

60. $150 - 75 = 150 + (-75) = 75$

61. $5 - 12 = 5 + (-12) = -7$

62. $16 - 10 = 16 + (-10) = 6$

63. $-34 - 21 = -34 + (-21) = -55$

64. $-90 - 22 = -90 + (-22) = -112$

65. $-35 - 24 = -35 + (-24) = -59$

66. $175 - 189 = 175 + (-189) = -14$

67. $6000 - (-423) = 6000 + 423 = 6423^\circ \text{F}$

68. $214 - (-184) = 214 + 184 = 398^\circ \text{C}$

69. $-\$320 - \$55 = -\$320 + (-\$55) = -\$375$
His balance is $-\$375$.

70. $-\$210 + \$25 = -\$185$
His balance is $-\$185$.

71. $17,476 + 1786 - 2342 - 754 + 321 + 1597$
 $= 19,262 - 2342 - 754 + 321 + 1597$
 $= 16,920 - 754 + 321 + 1597$
 $= 16,166 + 321 + 1597$
 $= 16,487 + 1597$
 $= 18,084$
The balance is $\$18,084$.

$2036 - 150 - 25 + 480 - 200 + 80$
 $= 1886 - 25 + 480 - 200 + 80$
 $= 1861 + 480 - 200 + 80$
 $= 2341 - 200 + 80$
 $= 2141 + 80$
 $= 2221$
The balance is $\$2221$.

72. $66 - (-98) = 66 + 98 = 164$

73. $16 - (-40) = 16 + 40 = 56$

$-56 + 66 + (-98) + 16 + (-40)$
 $= 10 + (-98) + 16 + (-40)$
 $= -88 + 16 + (-40)$
 $= -72 + (-40)$
 $= -112$

74. Because the total change is negative, the Dow was down for the week.

75. The range is $3^\circ - (-8^\circ) = 3^\circ + 8^\circ = 11^\circ$.

76. The range is $-1^\circ - (-12^\circ) = -1^\circ + 12^\circ = 11^\circ$.

77. For example: $4 - 10$

78. For example: $10 - 30$

79. $5, 1, -3, -7, -11, -15, -19$

80. $-13, -18, -23, -28, -33, -38, -43$

81. Positive

82. Negative

83. Positive

84. Positive or zero

85. Negative

86. Negative

87. Negative

88. Positive

91. $-190 - 223 = -413$

92. $-288 - 145 = -433$

93. $-23,624 - (-9001) = -14,623$

94. $-14,593 - (-34,499) = 19,906$

95. $892,904 - (-23,546) = 916,450$

96. $104,839 - (-24,938) = 129,777$

97. $29,029 - (-35,798) = 64,827 \text{ ft}$

98. $4392 - (-86) = 4478 \text{ m}$

Section 2.4 Multiplication and Division of Integers

Section 2.4 Practice Exercises

1. (a) positive; negative
(b) positive; negative

2. (a) $|-5| = 5$

(b) $|5| = 5$

(c) $-|5| = -5$

(d) $-|-5| = -(5) = -5$

(e) $-(-5) = 5$

3. $14 - (-5) = 14 + 5 = 19$

4. $-24 - 50 = -24 + (-50) = -74$

5. $-33 + (-11) = -44$

6. $-7 - (-23) = -7 + 23 = 16$

$$\begin{aligned} 23 - 12 + (-4) - (-10) \\ &= 23 + (-12) + (-4) + 10 \\ 7. \quad &= 11 + (-4) + 10 \\ &= 7 + 10 \\ &= 17 \end{aligned}$$

$$\begin{aligned} 9 + (-12) - 17 - 4 - (-15) \\ &= 9 + (-12) + (-17) + (-4) + 15 \\ 8. \quad &= -3 + (-17) + (-4) + 15 \\ &= -20 + (-4) + 15 \\ &= -24 + 15 \\ &= -9 \end{aligned}$$

9. $-3(5) = -15$

10. $-2(13) = -26$

11. $-5(-8) = 40$

12. $-12(-2) = 24$

13. $7(-3) = -21$

14. $5(-12) = -60$

15. $-12(-4) = 48$

16. $-6(-11) = 66$

17. $-15(3) = -45$

18. $-3(25) = -75$

19. $9(-8) = -72$

20. $8(-3) = -24$

21. $-14(0) = 0$

22. $-8(0) = 0$

23. $-95(-1) = 95$

24. $-144(-1) = 144$

25. $-3(-1) = 3$

26. $-12(-4) = 48$

27. $-5(3) = -15$

28. $9(-2) = -18$

29. $3(-5) = -15$

30. $-3(6) = -18$

31.
$$\begin{aligned} (-5)(-2)(-4)(-10) &= 10(-4)(-10) \\ &= -40(-10) \\ &= 400 \end{aligned}$$

32.
$$\begin{aligned} (-3)(-5)(-2)(-4) &= 15(-2)(-4) \\ &= -30(-4) \\ &= 120 \end{aligned}$$

33. $(-11)(-4)(-2) = 44(-2) = -88$

34. $(-20)(-3)(-1) = 60(-1) = -60$

$$\begin{aligned} & (24)(-2)(0)(-3) = -48(0)(-3) \\ 35. \quad & = 0(-3) \\ & = 0 \end{aligned}$$

$$\begin{aligned} & (3)(0)(-13)(22) = 0(-13)(22) \\ 36. \quad & = 0(22) \\ & = 0 \end{aligned}$$

$$\begin{aligned} & (-1)(-1)(-1)(-1)(-1)(-1) \\ & = 1(-1)(-1)(-1)(-1) \\ 37. \quad & = -1(-1)(-1)(-1) \\ & = 1(-1)(-1) \\ & = -1(-1) \\ & = 1 \end{aligned}$$

$$\begin{aligned} & (-1)(-1)(-1)(-1)(-1)(-1)(-1) \\ & = 1(-1)(-1)(-1)(-1)(-1) \\ & = -1(-1)(-1)(-1)(-1) \\ 38. \quad & = 1(-1)(-1)(-1) \\ & = -1(-1)(-1) \\ & = 1(-1) \\ & = -1 \end{aligned}$$

$$\begin{aligned} & (-2)(2)(2)(-2)(2) = -4(2)(-2)(2) \\ & = -8(-2)(2) \\ 39. \quad & = 16(2) \\ & = 32 \end{aligned}$$

$$\begin{aligned} & (2)(-2)(2)(2) = -4(2)(2) \\ 40. \quad & = -8(2) \\ & = -16 \end{aligned}$$

$$41. \quad -10^2 = -(10)(10) = -10(10) = -100$$

$$42. \quad -8^2 = -(8)(8) = -8(8) = -64$$

$$43. \quad (-10)^2 = (-10)(-10) = 100$$

$$44. \quad (-8)^2 = (-8)(-8) = 64$$

$$\begin{aligned}
 & -10^3 = -(10)(10)(10) \\
 45. \quad & = -10(10)(10) \\
 & = -100(10) \\
 & = -1000
 \end{aligned}$$

$$\begin{aligned}
 & -8^3 = -(8)(8)(8) \\
 46. \quad & = -8(8)(8) \\
 & = -64(8) \\
 & = -512
 \end{aligned}$$

$$\begin{aligned}
 & (-10)^3 = (-10)(-10)(-10) \\
 47. \quad & = 100(-10) \\
 & = -1000
 \end{aligned}$$

$$48. \quad (-8)^3 = (-8)(-8)(-8) = 64(-8) = -512$$

$$\begin{aligned}
 & -5^4 = -(5)(5)(5)(5) \\
 & = -5(5)(5)(5) \\
 49. \quad & = -25(5)(5) \\
 & = -125(5) \\
 & = -625
 \end{aligned}$$

$$\begin{aligned}
 & -4^4 = -(4)(4)(4)(4) \\
 & = -4(4)(4)(4) \\
 50. \quad & = -16(4)(4) \\
 & = -64(4) \\
 & = -256
 \end{aligned}$$

$$\begin{aligned}
 & (-5)^4 = (-5)(-5)(-5)(-5) \\
 51. \quad & = 25(-5)(-5) \\
 & = -125(-5) \\
 & = 625
 \end{aligned}$$

$$\begin{aligned}
 & (-4)^4 = (-4)(-4)(-4)(-4) \\
 52. \quad & = 16(-4)(-4) \\
 & = -64(-4) \\
 & = 256
 \end{aligned}$$

$$53. \quad (-1)^2 = (-1)(-1) = 1$$

$$54. \quad (-1)^3 = (-1)(-1)(-1) = 1(-1) = -1$$

$$\begin{aligned}
 -1^4 &= -(1)(1)(1)(1) \\
 &= -1(1)(1)(1) \\
 55. \quad &= -1(1)(1) \\
 &= -1(1) \\
 &= -1
 \end{aligned}$$

$$\begin{aligned}
 -1^5 &= -(1)(1)(1)(1)(1) \\
 &= -(1)(1)(1)(1) \\
 56. \quad &= -1(1)(1)(1) \\
 &= -1(1)(1) \\
 &= -1(1) \\
 &= -1
 \end{aligned}$$

$$57. \quad 60 \div (-3) = -20$$

$$58. \quad 46 \div (-2) = -23$$

$$59. \quad \frac{-56}{-8} = 7$$

$$60. \quad \frac{-48}{-3} = 16$$

$$61. \quad \frac{-15}{5} = -3$$

$$62. \quad \frac{30}{-6} = -5$$

$$63. \quad -84 \div (-4) = 21$$

$$64. \quad -48 \div (-6) = 8$$

$$65. \quad \frac{-13}{0} = \text{Undefined}$$

$$66. \quad \frac{-41}{0} = \text{Undefined}$$

$$67. \quad \frac{0}{-18} = 0$$

$$68. \quad \frac{0}{-6} = 0$$

69. $(-20) \div (-5) = 4$

70. $(-10) \div (-2) = 5$

71. $\frac{204}{-6} = -34$