

Name _____

Find the sum without the use of a number line.

1) $-5 + (-5)$

2) $-18 + (-7)$

3) $-10 + 4$

4) $20 + (-2)$

5) $4 + (-15)$

6) $4 + (-14)$

7) $-67 + 44$

8) $25 + (-10)$

9) $2.6 + (-1.5)$

10) $-\frac{1}{9} + \left(-\frac{1}{9}\right)$

11) $-\frac{1}{9} + \left(-\frac{7}{9}\right)$

12) $\left(-\frac{2}{9}\right) + \left(\frac{1}{2}\right)$

13) $22 + (-3) + (-20)$

14) $16 + (-24) + (-18)$

15) $16 + 21 + (-19)$

16) $-8 + 23 + (-1)$

17) $-16 + (-9) + (-8) + (-12)$

18) $7 + (-19) + 7 + (-12)$

19) $9 + (-13) + 4 + (-24)$

20) $-9 + (-7) + (-9) + (-5) + 19 + (-19)$

21) $-12 + (-4) + (-16) + (-4) + 8 + (-3)$

22) $22 + (-10)$

23) $23 + (-11)$

Simplify the algebraic expression.

24) $6(3y - 4) + 4$

25) $-9x + 6x$

26) $8y + (-3y)$

27) $-7a + (-3a)$

28) $3x + (-2) + (-6x) + 9$

29) $-2 + 2x + 8 + (-6x)$

30) $4(6y - 9) + 9$

31) $4(5y - 3) + 3$

32) $3(9y - 5) + 5$

33) $3(2x - 10) - 4x + 9$

34) $3(2x - 9) - 4x + 6$

35) $9(8 - 7a) + 10(5a - 5)$

36) $5(3 - 9a) + 6(4a - 9)$

Solve.

37) A deep-sea diver dives from the surface to 55 feet below the surface. She then dives down 10 more feet. Find the diver's depth.

38) A deep-sea diver dives from the surface to 129 feet below the surface. She then dives down 15 more feet. Find the diver's depth.

39) A deep-sea diver dives from the surface to 87 feet below the surface. She then dives down 28 more feet. Find the diver's depth.

40) A deep-sea diver dives from the surface to 158 meters below the surface and then swims up 7 meters, down 13 meters, down another 27 meters, and then up 21 meters. Find the diver's depth after these movements.

41) A deep-sea diver dives from the surface to 245 meters below the surface and then swims up 6 meters, down 18 meters, down another 29 meters, and then up 24 meters. Find the diver's depth after these movements.

42) A deep-sea diver dives from the surface to 241 meters below the surface and then swims up 10 meters, down 19 meters, down another 28 meters, and then up 22 meters. Find the diver's depth after these movements.

43) City A has an elevation of 14,884 feet above sea level while city B has an elevation of 132 feet below sea level. Find the difference in elevation between those two cities.

44) City A has an elevation of 11,021 feet above sea level while city B has an elevation of 109 feet below sea level. Find the difference in elevation between those two cities.

$$54) 9 - 4y - 1 - 7y$$

45) City A has an elevation of 12,397 feet above sea level while city B has an elevation of 106 feet below sea level. Find the difference in elevation between those two cities.

$$55) 9 - (-2x) + 8x - (-7)$$

$$56) 3 + 5y - 8y$$

46) City A has an elevation of 10,460 feet above sea level while city B has an elevation of 139 feet below sea level. Find the difference in elevation between those two cities.

$$57) 5x - 8 - 3x$$

$$58) 4 - 3y - 1 - 8y$$

47) City A has an elevation of 15,934 feet above sea level while city B has an elevation of 149 feet below sea level. Find the difference in elevation between those two cities.

$$59) 5 - 3y - 1 - 6y$$

$$60) 3 - (-3x) + 6x - (-10)$$

Simplify the algebraic expression.

$$48) 2x - 8x$$

$$61) 3 + 6y - 9y$$

$$49) 2x - 7x$$

$$62) 3x - 9 - 6x$$

$$50) 4x - 9x$$

$$63) 6 - 3y - 9 - 7y$$

$$51) 2 + 2y - 4y$$

$$64) 9 - (-3x) + 9x - (-2)$$

$$52) 2 + 3y - 5y$$

$$65) 5 - (-4x) + 8x - (-2)$$

$$53) 6x - 14 - 8x$$

$$66) 2 - (-2x) + 9x - (-8)$$

Answer Key

Testname: Q02PREP_1.5TO1.6V01

1) -10

2) -25

3) -6

4) 18

5) -11

6) -10

7) -23

8) 15

9) 1.1

10) $-\frac{2}{9}$

11) $-\frac{8}{9}$

12) $\frac{5}{18}$

13) -1

14) -26

15) 18

16) 14

17) -45

18) -17

19) -24

20) -30

21) -31

22) 12

23) 12

24) $18y - 20$

25) $-3x$

26) $5y$

27) $-10a$

28) $-3x + 7$

29) $-4x + 6$

30) $24y - 27$

31) $20y - 9$

32) $27y - 10$

33) $2x - 21$

34) $2x - 21$

35) $-13a + 22$

36) $-21a - 39$

37) 65 feet below the surface

38) 144 feet below the surface

39) 115 feet below the surface

40) 170 meters below the surface

41) 262 meters below the surface

42) 256 meters below the surface

43) 15,016 ft

44) 11,130 ft

45) 12,503 ft

46) 10,599 ft

Answer Key

Testname: Q02PREP_1.5TO1.6V01

47) 16,083 ft

48) $-6x$

49) $-5x$

50) $-5x$

51) $2 - 2y$

52) $2 - 2y$

53) $-2x - 14$

54) $8 - 11y$

55) $16 + 10x$

56) $3 - 3y$

57) $2x - 8$

58) $3 - 11y$

59) $4 - 9y$

60) $13 + 9x$

61) $3 - 3y$

62) $-3x - 9$

63) $-3 - 10y$

64) $11 + 12x$

65) $7 + 12x$

66) $10 + 11x$