Order of Operations Integers (1) Answers

1) $(6 + (-7) - 1) \times 8$

-16

2) $(-6) - ((-2) - 5)^2$

-55

3) $(6 - 1)((-3) - 4)$

-35

4) $20 \div (3 \times 2 - 4)$

10

5) $4 - 3 + 8 + 3$

12

6) $7 - (10 - (-8)) - 3$

-14

7) $(28 - 8) \div ((-9) - (-5))$

-5

8) $((-10) + 3) \div ((-8) + 7)$

7

9) $2 + (-1)^2 - 7$

-4

10) $((-6) \div (-3)) \times ((-30) \div (-3))$

20

11) $5 - (-7) + 1 + 2$

15

12) $8 \times (-1) - 3^2$

-17

13) $(-4) \times (-10) \div ((-9) + 7)$

-20

14) $(-8) \times (-30) \div (4 - 9)$

-48

15) $(22 - 6 - 8) \div (-8)$

-1

16) $(4 - 6 - 8) \times 4$

-40

17) $4((-9) - (-8)) \times (-4)$

16

18) $((-3) + 8 - (-2)) \times 6$

42

19) $(-9) \div (1 - ((-4) - (-8)))$

3

20) $(-1) - 5 - (-4)^3$

58

Order of Operations Integers (2) Answers

1) $(-6) \times 30 \div (-3) + 5$

65

2) $(-6) - ((-13) + 3) \div 10$

-5

3) $((-29) - (4 + 2)) \div 5$

-7

4) $8 + 7 + 10 - (-5)$

30

5) $(-3) - 3 + 5 - 1$

-2

6) $7 + 6((-6) - 10)$

-89

7) $(9 + 10)((-3) - (-4))$

19

8) $8 - ((-9) + 9 - 1)$

9

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

-5

10) $6 \times (-9) + 1 - 6$

-59

11) $(30 \div (-5))^2 - 2$

34

12) $(-2) \times 7 \div ((-4) + 3)$

14

13) $10(((-6) \div (-1)) - 3)$

30

14) $10 + 4 + 10 + 9$

33

15) $6 + (-9) - 8 - 8$

-19

16) $2 + (-3) + 8 + 1$

8

17) $(-7) - 4 + 2 + 8$

-1

18) $(14 - 8) \div (3 - 6)$

-2

19) $5 - 9 - 10 - (-6)$

-8

20) $(-3) + 3 + 9 \times 4$

36

B

Order of Operations Integers (3) Answers

1) $(-9) \times 5 + 2^2$

-41

2) $4 - (1 - 8 - 3)$

14

3) $6 \times 7 + 5 - 7$

40

4) $8 - 5 - 8 + 8$

3

5) $(-10) + 6 - 1 - 8$

-13

6) $(-2) - (8 \times 10 + 9)$

-91

7) $(-1) - 3 - (-6) \times (-3)$

-22

8) $24 \div (-6) - ((-1) - 10)$

7

9) $2 \times 2 + 8 - 3$

9

10) $(30 - 10) \div (3 + 1)$

5

11) $(-3) \times (-2) + (-4) + 8$

10

12) $(7 \times 3) \div ((-1) - 6)$

-3

13) $\left(3^2 - 3\right) \times (-8)$

-48

14) $((-30) \div 6) + 4 \times 2$

3

15) $(-4) - (7 - (10 - 8))$

-9

16) $5 - 8 \div (-8) - 9$

-3

17) $(-7) - 4 - 9 + 10$

-10

18) $9 - (-1) - 1 - 4$

5

19) $((-12) \times 2) \div 6$

-4

20) $8 - ((-9) + 10) \times (-7)$

15

Order of Operations Integers (4) Answers

1) $3 \times 18 \div ((-10) + 1)$

-6

2) $7 - 9 + 5 + 10$

13

3) $(((-1) - 7) \times 2) \div 8$

-2

4) $(-4) - ((-7) + (-8) + 10)$

1

5) $2 + 5 - ((-2) - 9)$

18

6) $2 - 9 - 2 - 9$

-18

7) $1 - 9 \times (-7) - 4$

60

8) $(-10) \times (-5) - 5 - (-8)$

53

9) $20 \div 10 - 2 \times 8$

-14

10) $3 - 7 \div ((-2) - (-9))$

2

11) $(-9) - (-6) + 3 \div 3$

-2

12) $2 - (-8) - 9 \times (-7)$

73

13) $(13 - 8) \div (6 - 1)$

1

14) $10 - ((-2) - 8 \times (-9))$

-60

15) $((-3) \times 3 + 4) \div (-1)$

5

16) $(-15) \div (9 - 1 - 5)$

-5

17) $(-7) \times 2 - 3 \times 2$

-20

18) $((11 - (-10)) \times 2) \div (-6)$

-7

19) $2 \div (-1) - (-4)^2$

-18

20) $3 - 1 - ((-16) \div (-2))$

-6

Order of Operations Integers (5) Answers

1) $10 \div 5 - 5 - 5$

-8

2) $(-3) + 2 - (-5) \times 3$

14

3) $((-28) \times 2) \div ((-8) - (-1))$

8

4) $((-9) - 6) \div ((-1) - (-4))$

-5

5) $(-10) \times 8(4 - 3)$

-80

6) $((-17) - (8 - 1)) \div (-4)$

6

7) $7 + 1 - (4 - 3)$

7

8) $10 \times ((-10) + 1) \div (-9)$

10

9) $(-7) + 5 + 5 \times (-4)$

-22

10) $((-26) + 8) \div ((-6) + 4)$

9

11) $(-3) + 4 - 1 + 3$

3

12) $(-4) \times (-7) + 9 - 10$

27

13) $(-4) - 12 \div 3 - 3$

-11

14) $1 + (-9) - ((-8) - 9)$

9

15) $(-9) - (-1) - 2^2$

-12

16) $((-3) \times 2) \div ((-4) - 2)$

1

17) $(-5) + (-4) - 9 - 5$

-23

18) $((-26) - (-6) - 4) \div 3$

-8

19) $\left(5^2 - 1\right) \times 4$

96

20) $5 - 4((-2) - (-2))$

5

Order of Operations (I) Answers

Name: _____ Date: _____

Solve each expression using the correct order of operations.

$\left(\underline{(-7)-(-5)}\right)^3 \div 4$
$= \underline{(-2)^3} \div 4$
$= \underline{(-8) \div 4}$
$= -2$

$(\underline{4^2} - 8) \times (-9)$
$= \underline{(16-8)} \times (-9)$
$= \underline{8 \times (-9)}$
$= -72$

$9 \div 3 - \underline{(-9)^2}$
$= \underline{9 \div 3} - 81$
$= \underline{3 - 81}$
$= -78$

$\underline{(-7)^2} - (-10) \times (-3)$
$= 49 - \underline{(-10) \times (-3)}$
$= \underline{49 - 30}$
$= 19$

$(-8) \times (-9) + \underline{(-3)^3}$
$= \underline{(-8) \times (-9)} + (-27)$
$= \underline{72 + (-27)}$
$= 45$

$(-2) \times \underline{2^2} - 4$
$= \underline{(-2) \times 4} - 4$
$= \underline{(-8) - 4}$
$= -12$

$(-8) \times \left(\underline{(-3)^2} + (-10)\right)$
$= (-8) \times \left(\underline{9 + (-10)}\right)$
$= \underline{(-8) \times (-1)}$
$= 8$

$4 - \underline{(-3)^3} \times 3$
$= 4 - \underline{(-27) \times 3}$
$= \underline{4 - (-81)}$
$= 85$

$\underline{(-4)^3} - (-6) \div 3$
$= (-64) - \underline{(-6) \div 3}$
$= \underline{(-64) - (-2)}$
$= -62$

$(\underline{3^3} + (-7)) \times (-2)$
$= \left(\underline{27 + (-7)}\right) \times (-2)$
$= \underline{20 \times (-2)}$
$= -40$

Name: _____ Date: _____

Answer Key

1 a.	$-9t - 4$
2 a.	$-17p - 18x - 1$
3 a.	$3s - 9$
4 a.	$6c - 7p - 8$
5 a.	$10w^2 + 5w - 13$
6 a.	$-10k + 4$
7 a.	$8az + 5a + 9z + 7$
8 a.	$-7x$
9 a.	$-8t + 22$

Name: _____ Date: _____

Answer Key

1 a. $-3t - 15$	**1 b.** $z + 10$
2 a. $8n$	**2 b.** a
3 a. $-4p - 4$	**3 b.** $2n$
4 a. $15c + 8$	**4 b.** $-16z + 7$
5 a. $-n - 9$	**5 b.** $16a$
6 a. $t - 16$	**6 b.** $5y + 9$
7 a. $-12t - 7$	**7 b.** $-9n$

Name: _____ Date: _____

Answer Key

1 a. $6c + 13$	**1 b.** $12v + 10$
2 a. $-p + 1$	**2 b.** $-y + 11$
3 a. $-w + 1$	**3 b.** $2n - 18$
4 a. $6w + 55$	**4 b.** $-13w$
5 a. $8x - 1$	**5 b.** $6z$
6 a. $-10y + 12$	**6 b.** $-6t - 10$
7 a. $-30z - 11$	**7 b.** $6p - 13$

Kuta Software - Infinite Pre-Algebra

Name_____

Multi-Step Equations

Date_____ Period____

Solve each equation.

1) $6a + 5a = -11$

{−1}

2) $-6n - 2n = 16$

{−2}

3) $4x + 6 + 3 = 17$

{2}

4) $0 = -5n - 2n$

{0}

5) $6r - 1 + 6r = 11$

{1}

6) $r + 11 + 8r = 29$

{2}

7) $-10 = -14v + 14v$

No solution.

8) $-10p + 9p = 12$

{−12}

9) $42 = 8m + 13m$

{2}

10) $a - 2 + 3 = -2$

{−3}

11) $18 = 3(3x - 6)$

{4}

12) $30 = -5(6n + 6)$

{−2}

13) $37 = -3 + 5(x + 6)$

$\{2\}$

14) $-13 = 5(1 + 4m) - 2m$

$\{-1\}$

15) $4(-x + 4) = 12$

$\{1\}$

16) $-2 = -(n - 8)$

$\{10\}$

17) $-6(1 - 5v) = 54$

$\{2\}$

18) $8 = 8v - 4(v + 8)$

$\{10\}$

19) $10(1 + 3b) = -20$

$\{-1\}$

20) $-5n - 8(1 + 7n) = -8$

$\{0\}$

21) $8(4k - 4) = -5k - 32$

$\{0\}$

22) $-8(-8x - 6) = -6x - 22$

$\{-1\}$

23) $8(1 + 5x) + 5 = 13 + 5x$

$\{0\}$

24) $-11 - 5a = 6(5a + 4)$

$\{-1\}$

25) $-5(4x-2) = -2(3+6x)$

$\{2\}$

26) $5(2x+6) = -4(-5-2x) + 3x$

$\{10\}$

Kuta Software - Infinite Algebra 1

Name_____

Combining Like Terms

Date_____ Period____

Simplify each expression.

1) $-6k + 7k$

k

2) $12r - 8 - 12$

$12r - 20$

3) $n - 10 + 9n - 3$

$10n - 13$

4) $-4x - 10x$

$-14x$

5) $-r - 10r$

$-11r$

6) $-2x + 11 + 6x$

$4x + 11$

7) $11r - 12r$

$-r$

8) $-v + 12v$

$11v$

9) $-8x - 11x$

$-19x$

10) $4p + 2p$

$6p$

11) $5n + 11n$

$16n$

12) $n + 4 - 9 - 5n$

$-4n - 5$

13) $12r + 5 + 3r - 5$

$15r$

14) $-5 + 9n + 6$

$1 + 9n$

M

15) $n - 4 - 9$

$n - 13$

16) $4n - n$

$3n$

17) $-3x - 9 + 15x$

$12x - 9$

18) $-9k + 8k$

$-k$

19) $-16n - 14n$

$-30n$

20) $15n - 19n$

$-4n$

21) $-4 + 7(1 - 3m)$

$3 - 21m$

22) $-5n + 3(6 + 7n)$

$16n + 18$

23) $-2n - (9 - 10n)$

$8n - 9$

24) $10 - 5(9n - 9)$

$55 - 45n$

25) $9a + 10(6a - 1)$

$69a - 10$

26) $-9(6m - 3) + 6(1 + 4m)$

$-30m + 33$

27) $-10(1 - 9x) + 6(x - 10)$

$-70 + 96x$

28) $5(-2n + 4) + 2(n + 3)$

$-8n + 26$

29) $-3(10b + 10) + 5(b + 2)$

$-25b - 20$

30) $-7(n + 3) - 8(1 + 8n)$

$-71n - 29$

Mixed Equations
ANSWER KEY

Solve the equations.

(1) $-3x - 8 = x + 4$

$-8 - 4x = 4$

$-4x = 12$

$x = -3$

(2) $4x - 4(2x - 3) = -32$

$4x - 8x + 12 = -32$

$-4x + 12 = -32$

$-4x = -44$

$x = 11$

(3) $-20 = -3x - 8$

$-12 = -3x$

$4 = x$

(4) $-4(-4x + 3) = -92$

$-4x + 3 = 23$

$-4x = 20$

$x = -5$

(5) $\frac{x}{4} + 1 = 4$

$\frac{x}{4} = 3$

$x = 12$

(6) $19 = -7x - 6(-x - 2)$

$19 = -7x + 6x + 12$

$19 = -x + 12$

$7 = -x$

$-7 = x$

(7) $3 - x = -3 - 2x$

$3 = -3 - x$

$6 = -x$

$-6 = x$

(8) $2 - x = -7 + 2x$

$2 = -7 + 3x$

$9 = 3x$

$3 = x$

(9) $-2x - 3 = 5$

$-2x = 8$

$x = -4$

(10) $-3x + 12 = x - 8$

$12 = -8 + 4x$

$20 = 4x$

$5 = x$

Mixed Equations
ANSWER KEY

Solve the equations.

(1) $6x - 3(6x + 3) = 87$

$6x - 18x - 9 = 87$

$-12x - 9 = 87$

$-12x = 96$

$x = -8$

(2) $-20 - 6x = x + 22$

$-20 - 7x = 22$

$-7x = 42$

$x = -6$

(3) $-48 - 4x = 42 + 2x$

$-48 - 6x = 42$

$-6x = 90$

$x = -15$

(4) $4x - 23 = 7 + 6x$

$-23 - 2x = 7$

$-2x = 30$

$x = -15$

(5) $5x - 3(3x + 8) = -48$

$5x - 9x - 24 = -48$

$-4x - 24 = -48$

$-4x = -24$

$x = 6$

(6) $20 + 4x = -3x - 43$

$20 = -43 - 7x$

$63 = -7x$

$-9 = x$

(7) $-34 = -2x - 2(-2x + 6)$

$-34 = -2x + 4x - 12$

$-34 = 2x - 12$

$-22 = 2x$

$-11 = x$

(8) $-13 - x = 22 - 6x$

$-13 + 5x = 22$

$5x = 35$

$x = 7$

(9) $5x + 28 = -21 - 2x$

$28 = -21 - 7x$

$49 = -7x$

$-7 = x$

(10) $3 + \frac{x}{-4} = -4$

$\frac{x}{-4} = -7$

$x = 28$

Mixed Equations
ANSWER KEY

Solve the equations.

(1) $6x - 3(6x + 3) = 87$

$6x - 18x - 9 = 87$

$-12x - 9 = 87$

$-12x = 96$

$x = -8$

(2) $-20 - 6x = x + 22$

$-20 - 7x = 22$

$-7x = 42$

$x = -6$

(3) $-48 - 4x = 42 + 2x$

$-48 - 6x = 42$

$-6x = 90$

$x = -15$

(4) $4x - 23 = 7 + 6x$

$-23 - 2x = 7$

$-2x = 30$

$x = -15$

(5) $5x - 3(3x + 8) = -48$

$5x - 9x - 24 = -48$

$-4x - 24 = -48$

$-4x = -24$

$x = 6$

(6) $20 + 4x = -3x - 43$

$20 = -43 - 7x$

$63 = -7x$

$-9 = x$

(7) $-34 = -2x - 2(-2x + 6)$

$-34 = -2x + 4x - 12$

$-34 = 2x - 12$

$-22 = 2x$

$-11 = x$

(8) $-13 - x = 22 - 6x$

$-13 + 5x = 22$

$5x = 35$

$x = 7$

(9) $5x + 28 = -21 - 2x$

$28 = -21 - 7x$

$49 = -7x$

$-7 = x$

(10) $3 + \frac{x}{-4} = -4$

$\frac{x}{-4} = -7$

$x = 28$

Mixed Equations
ANSWER KEY

Solve the equations.

(1) $-80 = -2x - 2(3x + 4)$

$-80 = -2x - 6x - 8$

$-80 = -8x - 8$

$-72 = -8x$

$9 = x$

(2) $14 = 7x + 3(-2x + 8)$

$14 = 7x - 6x + 24$

$14 = x + 24$

$-10 = x$

$-10 = x$

(3) $33 = 3(3x - 7)$

$11 = 3x - 7$

$18 = 3x$

$6 = x$

(4) $6(-6x - 3) = 162$

$-6x - 3 = 27$

$-6x = 30$

$x = -5$

(5) $-6x - 24 = 21 - x$

$-24 - 5x = 21$

$-5x = 45$

$x = -9$

(6) $4(4x + 5) = -92$

$4x + 5 = -23$

$4x = -28$

$x = -7$

(7) $-26 - 5x = 19$

$-5x = 45$

$x = -9$

(8) $\frac{-7x - 6}{-6} = -6$

$-7x - 6 = 36$

$-7x = 42$

$x = -6$

(9) $-67 = 6x + 5(2x + 9)$

$-67 = 6x + 10x + 45$

$-67 = 16x + 45$

$-112 = 16x$

$-7 = x$

(10) $-7x + 2(4x + 9) = 24$

$-7x + 8x + 18 = 24$

$x + 18 = 24$

$x = 6$

$x = 6$

Solving Multi-Step Equations

Variables on Both Sides - Negative Coefficients

ANSWER KEY

Solve the equations.

(1) $8x - 23 = 31 + 6x$

$-23 + 2x = 31$

$2x = 54$

$x = 27$

(2) $x - 102 = -11x + 174$

$-102 + 12x = 174$

$12x = 276$

$x = 23$

(3) $-51 + 11x = 2x + 93$

$-51 + 9x = 93$

$9x = 144$

$x = 16$

(4) $-51 - x = 84 + 8x$

$-51 - 9x = 84$

$-9x = 135$

$x = -15$

(5) $-4x - 20 = -5x + 13$

$-20 + x = 13$

$x = 33$

(6) $-87 + 7x = 3x + 61$

$-87 + 4x = 61$

$4x = 148$

$x = 37$

(7) $x - 149 = 49 + 7x$

$-149 - 6x = 49$

$-6x = 198$

$x = -33$

(8) $15x - 164 = 76 + 3x$

$-164 + 12x = 76$

$12x = 240$

$x = 20$

(9) $-11x - 73 = -2x + 80$

$-73 - 9x = 80$

$-9x = 153$

$x = -17$

(10) $3x - 158 = 52 + 10x$

$-158 - 7x = 52$

$-7x = 210$

$x = -30$

Solving Multi-Step Equations

Variables on Both Sides - Negative Coefficients

ANSWER KEY

Solve the equations.

(1) $-22 - 6x = -2x + 26$
$-22 - 4x = 26$
$-4x = 48$
$x = -12$

(2) $-71 - 6x = 19 + 4x$
$-71 - 10x = 19$
$-10x = 90$
$x = -9$

(3) $-21 - x = 2x + 21$
$-21 - 3x = 21$
$-3x = 42$
$x = -14$

(4) $6x - 60 = -2x + 44$
$-60 + 8x = 44$
$8x = 104$
$x = 13$

(5) $-35 - 2x = 10 + x$
$-35 - 3x = 10$
$-3x = 45$
$x = -15$

(6) $-43 - 6x = 20 + 3x$
$-43 - 9x = 20$
$-9x = 63$
$x = -7$

(7) $-19 - 3x = 9 - 5x$
$-19 + 2x = 9$
$2x = 28$
$x = 14$

(8) $-40 + 6x = 32 - 2x$
$-40 + 8x = 32$
$8x = 72$
$x = 9$

(9) $-5x - 39 = 10 + 2x$
$-39 - 7x = 10$
$-7x = 49$
$x = -7$

(10) $6x - 20 = 8 + 4x$
$-20 + 2x = 8$
$2x = 28$
$x = 14$

Solving Multi-Step Equations

Variables on Both Sides - Negative Coefficients

ANSWER KEY

Solve the equations.

(1) $-48 + 8x = 2x + 30$

$-48 + 6x = 30$

$6x = 78$

$x = 13$

(2) $-13 + 9x = 8x + 4$

$-13 + x = 4$

$x = 17$

(3) $-19 + 4x = x + 41$

$-19 + 3x = 41$

$3x = 60$

$x = 20$

(4) $-20 + 6x = 2x + 24$

$-20 + 4x = 24$

$4x = 44$

$x = 11$

(5) $-2x - 102 = 4x + 30$

$-102 - 6x = 30$

$-6x = 132$

$x = -22$

(6) $8x - 105 = -3x + 82$

$-105 + 11x = 82$

$11x = 187$

$x = 17$

(7) $-x - 85 = 5x + 35$

$-85 - 6x = 35$

$-6x = 120$

$x = -20$

(8) $-27 + 3x = 43 - 2x$

$-27 + 5x = 43$

$5x = 70$

$x = 14$

(9) $-30 - 6x = 15 - 3x$

$-30 - 3x = 15$

$-3x = 45$

$x = -15$

(10) $2x - 9 = 5x + 21$

$-9 - 3x = 21$

$-3x = 30$

$x = -10$