

Solving Two-Step Equations

Multiplication & Division - Negative Coefficients

Name: _____ Date: _____



Solve the equations.

(1) $-92 + 10x = 38$

(2) $39 = -131 + 10x$

(3) $4 = \frac{x}{5} - 8$

(4) $-10 = 6 + \frac{x}{2}$

(5) $-1 = 2 + \frac{x}{-15}$

(6) $-7 + \frac{x}{-4} = 4$

(7) $10 = \frac{x}{-3} - 7$

(8) $-8x + 14 = -42$

(9) $14 - 4x = -30$

(10) $-10 + \frac{x}{-4} = -31$

(11) $-1 + \frac{x}{16} = 2$

(12) $-19 + 6x = 23$

(13) $66 = -6x + 24$

(14) $\frac{x}{-3} - 3 = 12$

(15) $-1 + \frac{x}{20} = -4$

Solving Two-Step Equations

Multiplication & Division - Negative Coefficients

ANSWER KEY



Solve the equations.

$$(1) \quad -92 + 10x = 38$$

$$10x = 130$$

$$x = 13$$

$$(2) \quad 39 = -131 + 10x$$

$$170 = 10x$$

$$17 = x$$

$$(3) \quad 4 = \frac{x}{5} - 8$$

$$12 = \frac{x}{5}$$

$$60 = x$$

$$(4) \quad -10 = 6 + \frac{x}{2}$$

$$-16 = \frac{x}{2}$$

$$-32 = x$$

$$(5) \quad -1 = 2 + \frac{x}{-15}$$

$$-3 = \frac{x}{-15}$$

$$45 = x$$

$$(6) \quad -7 + \frac{x}{-4} = 4$$

$$\frac{x}{-4} = 11$$

$$x = -44$$

$$(7) \quad 10 = \frac{x}{-3} - 7$$

$$17 = \frac{x}{-3}$$

$$-51 = x$$

$$(8) \quad -8x + 14 = -42$$

$$-8x = -56$$

$$x = 7$$

$$(9) \quad 14 - 4x = -30$$

$$-4x = -44$$

$$x = 11$$

$$(10) \quad -10 + \frac{x}{-4} = -31$$

$$\frac{x}{-4} = -21$$

$$x = 84$$

$$(11) \quad -1 + \frac{x}{16} = 2$$

$$\frac{x}{16} = 3$$

$$x = 48$$

$$(12) \quad -19 + 6x = 23$$

$$6x = 42$$

$$x = 7$$

$$(13) \quad 66 = -6x + 24$$

$$42 = -6x$$

$$-7 = x$$

$$(14) \quad \frac{x}{-3} - 3 = 12$$

$$\frac{x}{-3} = 15$$

$$x = -45$$

$$(15) \quad -1 + \frac{x}{20} = -4$$

$$\frac{x}{20} = -3$$

$$x = -60$$

Pomeroy
Two Step Equations

Name: _____

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Worksheet generated at www.math.com

1.) $-7x - 9 = 61$

2.) $8 + 6x = 20$

3.) $7x + 1 = -13$

4.) $5 - 3x = -28$

5.) $6x + 5 = -19$

6.) $-4x - 5 = -21$

7.) $-3 + 3x = 21$

8.) $-3x + 8 = 29$

9.) $-5x + 8 = 33$

10.) $4x - 7 = 21$

11.) $4x + 3 = 35$

12.) $-4x - 10 = -14$

13.) $7 + 5x = 27$

14.) $5x + 4 = -41$

15.) $-7 + 5x = -67$

16.) $6x + 4 = 40$

17.) $4x + 7 = 15$

18.) $-4x - 10 = -6$

19.) $5x + 3 = 53$

20.) $-7 - 3x = 8$

21.) $5x + 5 = -50$

22.) $8 + 2x = -16$

23.) $3x + 5 = 29$

24.) $-4x + 8 = 40$

25.) $2 + 4x = -22$

26.) $4x - 7 = -55$

27.) $8 + 3x = -28$

28.) $10 + 6x = 76$

29.) $-10 + 4x = -30$

30.) $-5x + 6 = 1$

31.) $2x + 6 = 8$

32.) $-3x + 1 = 10$

33.) $4x + 3 = -21$

34.) $7 + 2x = 15$

35.) $4 - 7x = -38$

36.) $-2x + 3 = -21$

37.) $3 + 6x = 21$

38.) $7x - 1 = 76$

39.) $-5 + 5x = 5$

40.) $3 + 4x = 3$

Pomeroy
Two Step Equations

Name: _____

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1.) $-7 - 3x = -16$

2.) $3 + 3x = 30$

3.) $1 - 6x = -17$

4.) $2x + 6 = 24$

5.) $5x + 5 = -45$

6.) $5x - 2 = 23$

7.) $7 + 7x = 14$

8.) $6 + 3x = -6$

9.) $5x - 7 = 28$

10.) $6 - 4x = -26$

11.) $-5 - 6x = -53$

12.) $7x - 6 = -41$

13.) $-5x + 3 = 18$

14.) $4x - 1 = -13$

15.) $6x + 10 = 22$

16.) $3x + 6 = 9$

17.) $-5x + 2 = 22$

18.) $-2x + 10 = 26$

19.) $3x - 3 = 9$

20.) $7x - 4 = 66$

21.) $-5x - 7 = -32$

22.) $3 + 6x = 39$

23.) $-2x - 3 = 15$

24.) $6x + 7 = 7$

25.) $6 - 2x = -8$

26.) $-3x - 1 = -28$

27.) $5x + 6 = 21$

28.) $4x - 4 = -4$

29.) $6x + 2 = -16$

30.) $6x + 8 = 68$

31.) $-1 + 4x = -49$

32.) $-4x + 4 = -12$

33.) $-7x - 7 = -28$

34.) $9 + 5x = 9$

Two-step equations - integers

Solve each equation.

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

2) $28 = -2 - 5x$

3) $2 = 7 + \frac{b}{4}$

4) $-10a - 5 = 135$

5) $13 = \frac{x}{3} + 8$

6) $\frac{k}{3} + 9 = 2$

$$7) -13 = \frac{v}{10} - 12$$

$$8) -5 + \frac{x}{3} = -11$$

$$9) 252 = -11n + 10$$

$$10) 189 = -1 + 10m$$

$$11) -6 = -8 + \frac{P}{11}$$

$$12) \frac{r}{16} + 6 = 7$$

$$13) 0 = \frac{n}{2} - 4$$

$$14) -3 + 9b = 96$$

$$15) 41 = -3v + 11$$

$$16) 8 = \frac{x}{3} + 11$$

$$17) 9 + \frac{a}{10} = 10$$

$$18) 0 = \frac{x}{18} + 1$$

$$19) -4k + 2 = 22$$

$$20) -9 - 8x = -193$$

$$21) -12 + \frac{x}{5} = -9$$

$$22) -5 = \frac{n}{3} - 8$$

$$23) \frac{n}{6} + 2 = 1$$

$$24) -11 - 9p = -146$$

$$25) 3 + 11x = 80$$

$$26) 44 = -4m - 8$$

$$27) -7 + \frac{n}{2} = -14$$

$$28) -11 + \frac{b}{11} = -13$$

$$29) -18 = 11x - 7$$

$$30) -56 = -10r + 4$$

Answers to Two-step equations - integers

- | | | | |
|----------|-----------|-----------|-----------|
| 1) {3} | 2) {-6} | 3) {-20} | 4) {-14} |
| 5) {15} | 6) {-21} | 7) {-10} | 8) {-18} |
| 9) {-22} | 10) {19} | 11) {22} | 12) {16} |
| 13) {8} | 14) {11} | 15) {-10} | 16) {-9} |
| 17) {10} | 18) {-18} | 19) {-5} | 20) {23} |
| 21) {15} | 22) {9} | 23) {-6} | 24) {15} |
| 25) {7} | 26) {-13} | 27) {-14} | 28) {-22} |
| 29) {-1} | 30) {6} | | |