



Linear Equations and Inequalities

1 Which linear equation has this many solutions?

Infinitely many solutions

A

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

B

$$3(2x + 5) = 6x + 15$$

2 How many solutions does this linear equation have?

$$3(4x + 2) = 6x + 4$$

A

Infinitely many solutions

B

Zero solutions

C

One solution

3 Solve the fraction for 'x' in terms of the variables and reduce.

$$a = \frac{2x}{4c}$$

A

$$x = \frac{a}{8c}$$

B

$$x = 2a \cdot c$$

C

$$x = \frac{c}{8a}$$

4 Solve the fraction for 'x' in terms of the variables and reduce.

$$2a = \frac{x}{2c}$$

A

$$x = a \cdot c$$

B

$$x = \frac{a}{c}$$

C

$$x = \frac{c}{a}$$

D

$$x = 4a \cdot c$$

5 Solve the two-step inequality for x.

$$3x + 11 \leq 14$$

A

$$x \leq 1$$

B

$$x < 1$$

C

$$x \geq 1$$

D

$$x \leq 2$$

6 Given the simple interest formula, how would you solve for Rate?

$$I = PRI$$

$$R = ?$$

A

$$R = \frac{I}{PI}$$

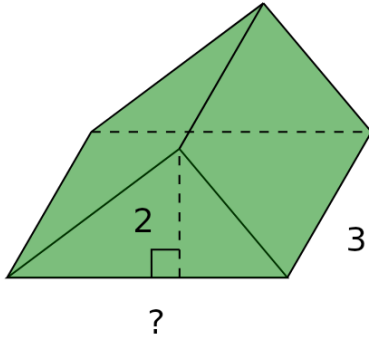
B

$$R = \frac{T}{IF}$$



Linear Equations and Inequalities

- 7** What is the length of the missing side of this Triangular Prism?



$$V=15$$

A 1	B 10	C 5
D 8	E 6	F 13

- 8** Solve the fraction for 'x' in terms of the variables and reduce.

$$s = \frac{x}{h}$$

A

$$x = \frac{s}{h}$$

B

$$x = \frac{h}{s}$$

C

$$x = s \cdot h$$

- 9** Solve for the variable in the equation

$$3y = 15 - 2y$$

A $y = 6$	B $y = 4$
C $y = 1$	D $y = 0$
E $y = 3$	F $y = 2$

- 11** Solve for the variable in the equation

$$8r + 7 = 11 + 6r$$

A $r = -1$	B $r = 5$
C $r = 4$	D $r = 0$
E $r = 2$	F $r = 3$

- 10** Solve the fraction for 'x' in terms of the variables and reduce.

$$a = \frac{x}{2d}$$

A

$$x = \frac{d}{a}$$

B

$$x = 2a \cdot d$$

C

$$x = \frac{d}{2a}$$

D

$$x = \frac{2d}{a}$$



Linear Equations and Inequalities

- 12** Solve the fraction for 'x' in terms of the variables and reduce.

$$2a = \frac{2x}{2c}$$

A

$$x = \frac{c}{2a}$$

B

$$x = \frac{a \cdot c}{2}$$

C

$$x = 2a \cdot c$$

- 13** What number can be put in the circle to make this equation correct?

$$7 \cdot \bigcirc - 4 = 76 - 9 \cdot \bigcirc$$

A

$$\bigcirc = 6$$

B

$$\bigcirc = 3$$

C

$$\bigcirc = 5$$

D

$$\bigcirc = 7$$

E

$$\bigcirc = 8$$

F

$$\bigcirc = 2$$

- 14** What number can be put in the circle to make this equation correct?

$$8 \cdot \bigcirc = 52 - 5 \cdot \bigcirc$$

A

$$\bigcirc = 6$$

B

$$\bigcirc = 2$$

C

$$\bigcirc = 4$$

D

$$\bigcirc = 7$$

E

$$\bigcirc = 3$$

F

$$\bigcirc = 5$$

- 15** What number can be put in the circle to make this equation correct?

$$5 \cdot \bigcirc = 4 + 4 \cdot \bigcirc$$

A

$$\bigcirc = 6$$

B

$$\bigcirc = 7$$

C

$$\bigcirc = 1$$

D

$$\bigcirc = 2$$

E

$$\bigcirc = 3$$

F

$$\bigcirc = 4$$

- 16** Solve the two-step inequality for x.

$$-9x - 5 \leq -113$$

A

$$x \geq 13$$

B

$$x > 12$$

C

$$x \leq 12$$

D

$$x \geq 12$$

- 17** Solve the two-step inequality for x.

$$8x + 12 \leq 108$$

A

$$x < 12$$

B

$$x \leq 12$$

C

$$x \leq 13$$

D

$$x \geq 12$$

- 18** Solve the two-step inequality for x.

$$3 - 6x \geq -33$$

A

$$x \leq 7$$

B

$$x \geq 6$$

C

$$x < 6$$

D

$$x \leq 6$$