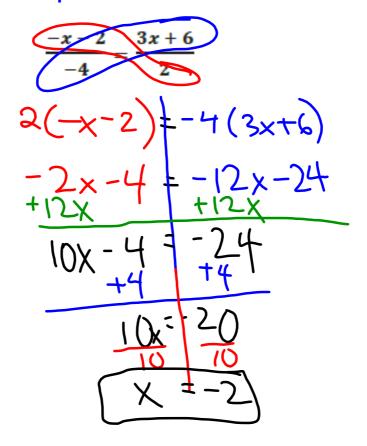
Warm-Up



Practice Answers

1.
$$\frac{5}{6x-2} = \frac{-1}{x+1}$$

$$\frac{5}{6x-2} = \frac{-1}{x+1}$$

$$5(x+1) = -1(6x-2)$$

$$5x+5 = -6x+2$$

$$5x+5-5 = -6x+2-5$$

$$5x = -6x-3$$

$$5x+6x = -6x+6x-3$$

$$11x = -3$$

$$x = -\frac{3}{11}$$

$$3. \quad \frac{3x}{x+2} = \frac{5}{9}$$

$$\frac{3x}{x+2} = \frac{5}{9}$$

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

$$27x = 5x + 10$$

$$27x - 5x = 5x - 5x + 10$$

$$22x = 10$$

$$\frac{22}{22}x = \frac{10}{22}$$

$$x = \frac{5}{11}$$

5.
$$\frac{7-2x}{6}=\frac{x-5}{1}$$

$$\frac{7-2x}{6} = \frac{x-5}{1}$$

$$6(x-5) = (7-2x)1$$

$$6x-30 = 7-2x$$

$$6x-30+30 = 7+30-2x$$

$$6x = 37-2x$$

$$6x+2x = 37-2x+2x$$

$$8x = 37$$

$$\frac{8}{8}x = \frac{37}{8}$$

$$x = \frac{37}{8}$$

7.
$$\frac{6x+1}{3} = \frac{9-x}{7}$$

$$\frac{6x+1}{3} = \frac{9-x}{7}$$

$$(6x+1)7 = 3(9-x)$$

$$42x+7 = 27-3x$$

$$42x+7-7 = 27-7-3x$$

$$42x = 20-3x$$

$$42x+3x = 20-3x+3x$$

$$45x = 20$$

$$\frac{45}{45}x = \frac{20}{45}$$

$$x = \frac{4}{9}$$

$$9. \quad \frac{3-x}{1-x}=\frac{3}{2}$$

$$\frac{3-x}{1-x} = \frac{3}{2}$$

$$(3-x)2 = (1-x)3$$

$$6-2x = 3-3x$$

$$6-2x+2x = 3-3x+2x$$

$$6=3-x$$

$$6-3=3-3-x$$

$$3=-x$$

$$-3=x$$

Classwork

Example 1

Paul walks 2 miles in 25 minutes. How many miles can Paul walk in 137.5 minutes?

25 minutes 2 miles

12.5 minutes 1 mile

Time (in minutes)	Distance (in miles)
25	2
50	4
75	6
(00)	8
1,2,5	
150	HE

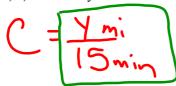
Exercises



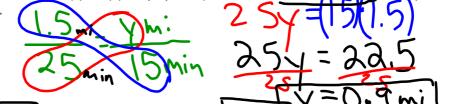
- 1. Wesley walks at a constant speed from his house to school 1.5 miles away. It took him 25 minutes 1
 - a. What fraction represents his constant speed, C?

$$C = \frac{1.5 \, \text{mi}}{25 \, \text{min}} = \frac{1.5}{25}$$

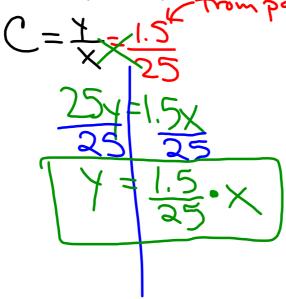
You want to know how many miles he has walked afte 15 minutes. Let y represent the distance he traveled after 15 minutes of walking at the given constant speed. Write a fraction that represents the constant speed, C, in terms of y.



Write the fractions from parts (a) and (b) as a proportion, and solve td find how after 15 minutes.



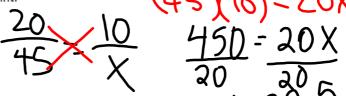
Let y be the distance in miles that Wesley traveled after x minute that represents how many miles Wesley walked after x minutes.

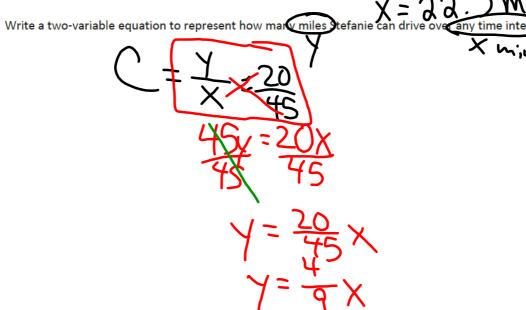


- 2. Stefanie drove at a constant speed from her apartment to her friend's house 20 niles away. It took her 45 minutes to reach her destination.
 - What fraction represents her constant speed, C?

What fraction represents constant speed, C, if it takes her x number of minutes to get halfway to her friend's

Write and solve a proportion using the fractions from parts (a) and (b) to determine how many minutes it takes her to get to the halfway point.





3. The equation that represents how many miles, y, Dave travels after x hours is y = 50x + 15. Use the equation to complete the table below.

x (hours)	Linear Equation: $y=50x+15$	y (miles)
1	y = 50(1) + 15	65
2	7=50(2)+15	115
3	4=50(3)+15	165
3.5	y=50(3.5)+15	190
4.1	y=50(4,1)+(5	220