

Hrv: Proportions Word Problems
Dec 3

8) Let $x = \#$ of quarts sold

$$\frac{35 \text{ cups}}{x} = \frac{4 \text{ cups}}{1 \text{ qt}}$$

$$\frac{4x}{4} = \frac{35}{4}$$

$$x = 8\frac{3}{4} \text{ quarts}$$

* Erin sold $8\frac{3}{4}$ quarts of lemonade

9) Let $x = \#$ of pounds

$$\frac{1 \text{ pound}}{16 \text{ ounces}} = \frac{x}{72 \text{ oz}}$$

$$\frac{16x}{16} = \frac{72}{16}$$

$$x = 4\frac{1}{2} \text{ lbs}$$

* The mass of potatoes is $4\frac{1}{2}$ pounds

10) Let $x = \#$ of days

$$\frac{6 \text{ lawns}}{6 \text{ days}} = \frac{40}{x}$$

$$16x = (6)(40)$$

$$\frac{16x}{16} = \frac{240}{16}$$

$$x = 15$$

* Tyler will have mowed 40 lawns in 15 days.

11.) $\frac{2}{6} = \frac{22}{2x}$

$2(2x) = 6(22)$

$\frac{4x}{4} = \frac{132}{4}$

$x = 33$

12.) $\frac{7.8}{8n} = \frac{3}{30}$

$8n(3) = 30(7.8)$

$\frac{24n}{24} = \frac{234}{24}$

$n = 9.75$

13.) $\frac{7}{5} = \frac{2x}{3x-11}$

$5(2x) = 7(3x-11)$

$10x = 21x - 77$

$\frac{-11x}{-11} = \frac{-77}{-11}$

$x = 7$

14.) $\frac{2}{9} = \frac{4}{x+7}$

$9(4) = 2(x+7)$

$36 = 2x + 14$

$\frac{-14}{-2} = \frac{-22}{-2}$

$22 = 2x$

$x = 11$