

1. Determine whether the following ratios are proportional.

$$(42)(6.5) = \underline{273} \quad (14)(10.5) = \underline{147}$$

$$\frac{6.5}{14} = \frac{10.5}{42}$$

No

$$\left(\frac{2}{1}\right)\left(\frac{35}{2}\right) = \underline{\frac{35}{2}} \quad \left(\frac{10}{3}\right)\left(\frac{11}{2}\right) = \underline{\frac{55}{3}}$$

$$\frac{2}{3\frac{1}{3}} = \frac{11}{8\frac{3}{4}}$$

No

2. Solve:

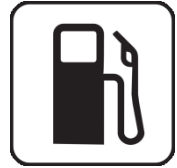
$$\frac{5}{6} = \frac{4\frac{2}{3}}{5\frac{1}{2}x}$$

$$\left(\frac{11}{2}\right)\left(\frac{5}{6}\right) = \frac{14}{3}x$$

$$\frac{3}{14} \cdot \frac{55}{12} = \frac{14}{3}x \cdot \frac{3}{14}$$

$$\frac{55}{56} = x$$

3. Suppose you drive 120.3 miles using 11.5 gallons of gas. At this rate, how much gas would it take for you to drive 1000 miles? (Round your answer to the nearest tenth.)



$$\frac{120.3 \text{ miles}}{11.5 \text{ gal}} = \frac{1000 \text{ miles}}{x \text{ gal}}$$

$$120.3x = (11.5)(1000)$$

$$120.3x = 11500$$

$$x \approx 95.6$$

It would take approximately 95.6 gallons of gas.

Q: If you have 10 black socks and 10 green socks in a drawer (all mixed up), how many socks do you need to take out to be sure that you have a pair of the same color?