

1. 3 out of 5

$$\frac{3}{5} = \frac{\quad}{100}$$

$$\% = \frac{n}{100}$$

13.  $30\% = \frac{30}{100} = \frac{3}{10}$  Always reduce

1. unit rate

343.8 mi. on 9 gal

$$\frac{343.8 \text{ mi.}}{9 \text{ gal}} = \frac{\quad}{1 \text{ gal}}$$

denominator is 1.

$\frac{\$}{\# \text{ of items}}$  unit price


10.)  $\frac{70 \text{ mi.}}{1 \text{ hr}} = \frac{\text{ft.}}{\text{sec.}}$

$$\frac{70 \text{ mi}}{1 \text{ hr}} \times \frac{\quad}{\quad}$$

$$\frac{5280 \text{ ft}}{1 \text{ mi}} \quad \frac{1 \text{ mi}}{5280 \text{ ft}}$$

$$\frac{60 \text{ sec}}{1 \text{ min}} \quad \frac{1 \text{ min}}{60 \text{ sec}}$$

$$\frac{60 \text{ min}}{1 \text{ hr}} \quad \frac{1 \text{ hr}}{60 \text{ min}}$$

8.)   $\frac{1}{4} \text{ in.} = 8 \text{ yd.}$

$$\frac{\frac{1}{4} \text{ in}}{8 \text{ yd}} = \frac{48 \text{ yd}}{n \text{ (in)}} \quad \frac{\frac{1}{4} \text{ in}}{8 \text{ yd}} = \frac{24 \text{ yd}}{n}$$

# 6-7 Similar Figures

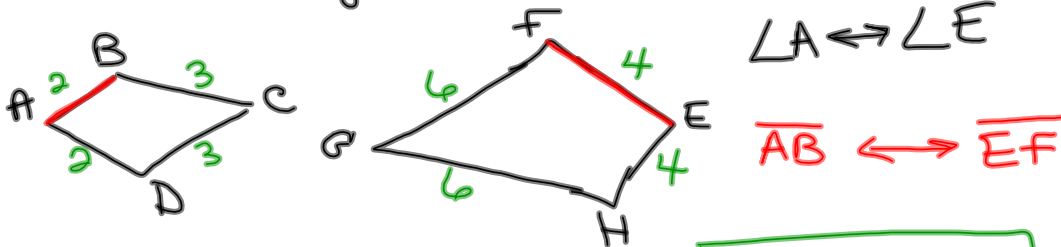
proportional (equal ratio)

## Similar Figures

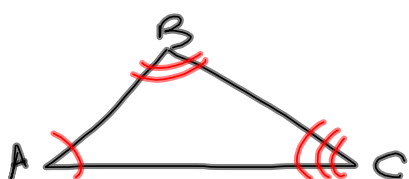
- same shape
- not necessarily same size

$$ABCD \sim EFGH$$

↔ Corresponding Parts (Congruent = Same Measure)  
angles and sides in the same position

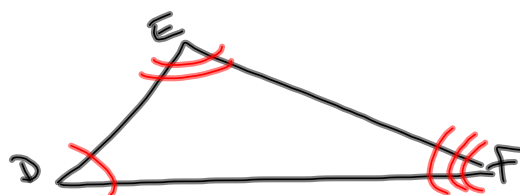


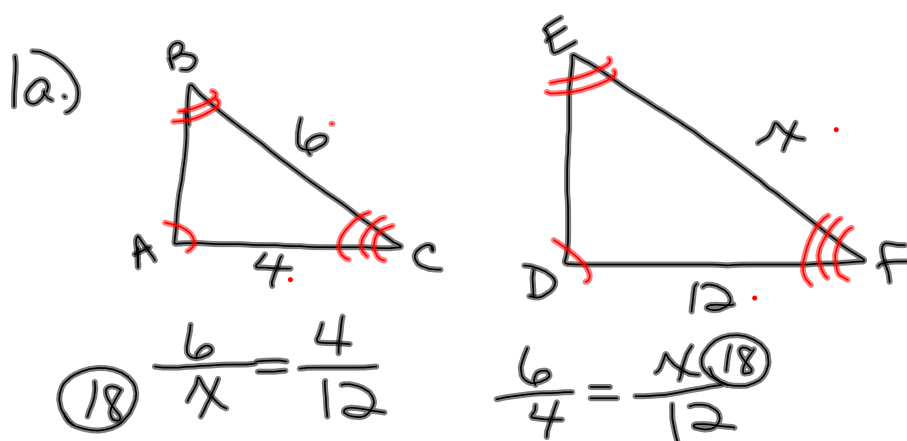
Corresponding sides are proportional



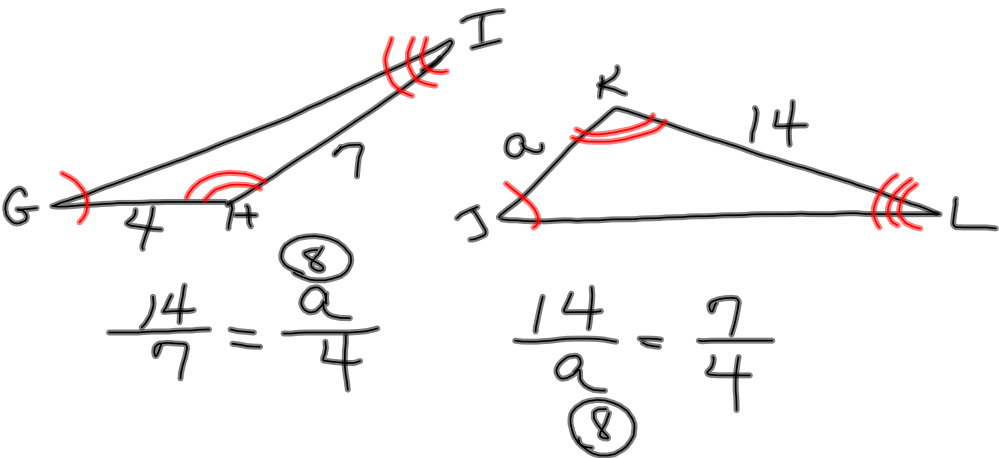
$$\angle A \leftrightarrow \angle D$$

$$\overline{AB} \leftrightarrow \overline{DE}$$





$$\frac{120}{5} = \frac{b=4}{24} \quad \frac{120}{30} = 4$$

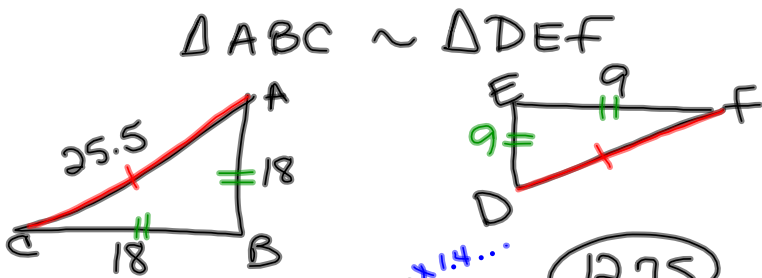




$$y = kx$$

$k$  (constant of proportionality)  
 ratio equal ratio  
 proportion.

$\frac{\text{model}}{\text{actual}}$



Isosceles  
 2 sides same

$$\frac{9}{18} = \frac{12.75}{25.5}$$