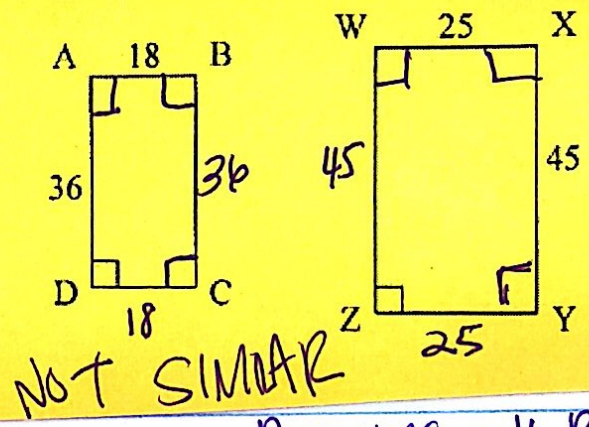
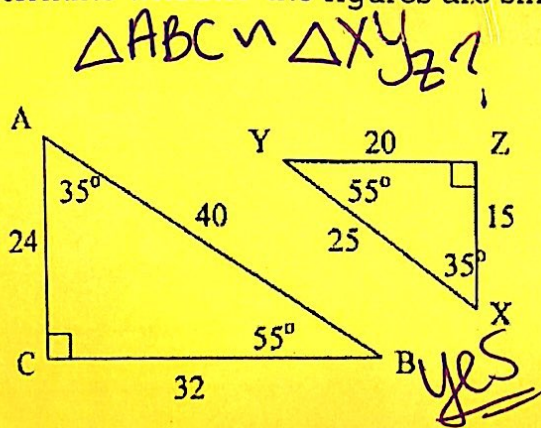


# Similar Figures

- They have the same shape but not the same size
- In similar figures, corresponding angles are congruent and corresponding sides are proportional
- A Scale factor is the proportion between corresponding sides

1. Determine whether the figures are similar: 2. Determine whether the figures are similar:



$$\frac{\triangle ABC}{\triangle XYZ} = \frac{40}{25} \stackrel{?}{=} \frac{32}{20} \stackrel{?}{=} \frac{24}{15} \stackrel{?}{=} ?$$

$$\frac{8}{5} \stackrel{?}{=} \frac{8}{5} \stackrel{?}{=} \frac{8}{5} \rightarrow \text{YES}$$

SIMILAR FIGURES

Assume all Right Angles

$$\frac{\square WXYZ}{\square ABCD} = \frac{45}{36} \stackrel{?}{=} \frac{25}{18}$$

NO  $\frac{5}{4} \stackrel{?}{=} \frac{25}{18}$

NOT SIMILAR

How tall is the tree?



8ft

Ricky



4.5

$$\frac{X}{6} = \frac{8}{4.5}$$

$$4.5X = 48$$

X = 10.666  
10 ft + 8 inches

7/8



# Similar Figures Practice

1.  $b$  ft

2.  $4m = b$

3. yes

4.  $15$  ft

5.  $n = 45$  m

6. no

7.  $26$  ft

8.  $w = 6$  in

9.  $a = 6$  in

10.  $5$  ft

11.

$m = 12$  yd

12.

$c = 25$  in

13.

$48$  ft

14.

$x = 4.5$  km

15.

$p = 102^\circ$

16.

$7.5$  ft

17.

yes

18.

$4$  ft

19.

$k = 12$  in

20.

$37.5$  ft