

Brown's Chapter 7 Practice Test

#1-2, Solve each proportion

1. $\frac{3}{5} = \frac{x}{15}$

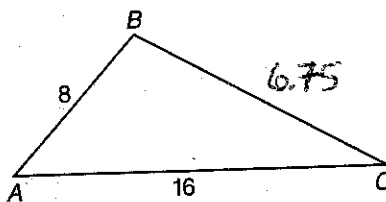
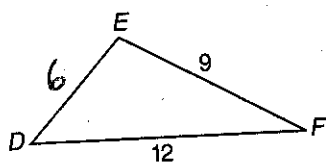
2. $\frac{x+1}{5} = \frac{x-1}{2}$

3. The ratio of seniors to juniors in the Math Club is 2:3. If there are 40 upperclassman in club, how many are seniors?

4. A 15-foot building casts a 9-foot shadow. How tall is a building that casts a 30-foot shadow at the same time?

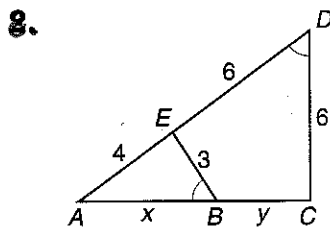
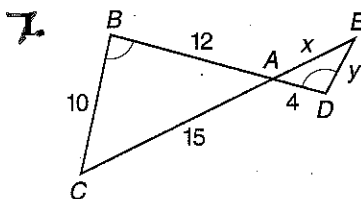
5. A photo that is 3 inches wide and 5 inches high was enlarged so that it is 12 inches wide. How high is the enlargement?

6. Are the triangles similar? If so, what is the scale factor?

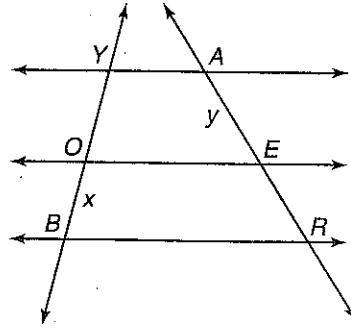


#7-8

Identify the similar triangles in each figure. Explain why they are similar and use the given information to find x and y .



9. In the figure at the right, $\overline{YA} \parallel \overline{OE} \parallel \overline{BR}$. Find the values of x and y if $YO = 4$, $ER = 16$, and $AR = 24$.



10. Are any of the following rectangles similar? If so, which ones?

- a. 7 ft by 13 ft b. 14 in. by 39 in.
c. 1 ft by 3 ft d. $2\frac{1}{3}$ ft by $6\frac{1}{2}$ ft

11. If $\frac{a}{b} = \frac{c}{d}$, then \square .

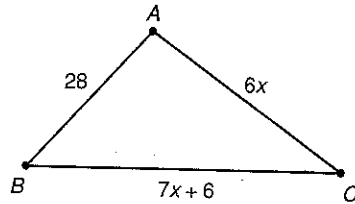
a. $\frac{a+b}{b} = \frac{c+b}{d}$

b. $ac = bd$

c. $\frac{a+b}{b} = \frac{c+d}{d}$

d. $\frac{a}{b} = \frac{a+c}{b+d}$

12. The ratios of the side lengths of triangle ABC are 7:9:12 ($AB:AC:BC$). Solve for x .



13. Write as a ratio

$$\frac{3 \text{ yards}}{48 \text{ inches}}$$

14. Solve for w .

