

Hwk #6

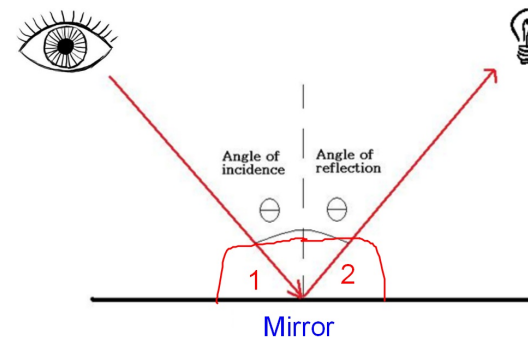
Sec 7-2

Pages 375-376

Problems 7, 8, 11, 13, 14, 18, 22, 23, 27

Due Thursday

Angle of Incidence = Angle of Reflection

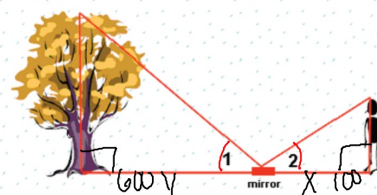


How are angles 1 and 2 related? They are congruent

Jim looks at the mirror on the ground and sees the top of the tree.

Why are the two triangles similar? AA

Height from the ground to Jim's eyes = 150 cm
Distance from the middle of the mirror to Jim = 100 cm
Distance from the middle of the mirror to the tree = 600 cm



$$\frac{150}{100} = \frac{x}{600}$$

Jim $h = 150$

900 cm

Hwk #7

Sec 7-3

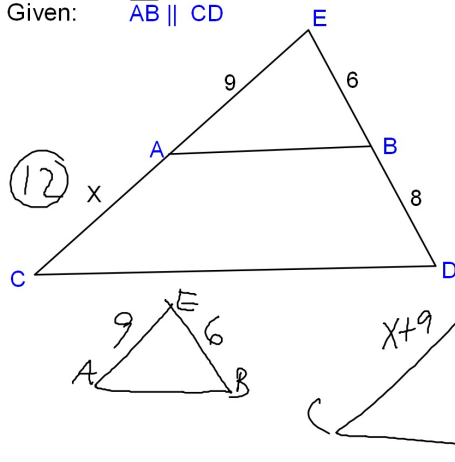
Pages 385-386

Problems 1, 2, 4, 5, 17-19

Due Friday

Section 7-5: Proportions in Triangles.

Given: $\overline{AB} \parallel \overline{CD}$



Draw the triangles separately and label the vertices with the variables and put the lengths on the sides.

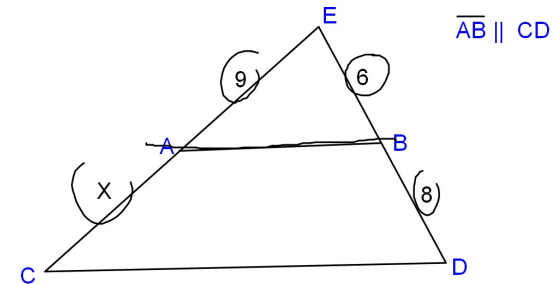
Find the value of x

$$\frac{x+9}{9} = \frac{14}{6}$$

$$x = 12$$

Side-Splitter Theorem

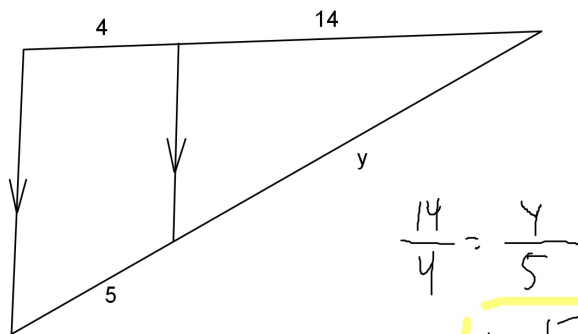
If a line is parallel to one side of a triangle and intersects the other two sides, then it divides those sides proportionally.



$$\frac{9}{x} = \frac{6}{8}$$

$$x = 12$$

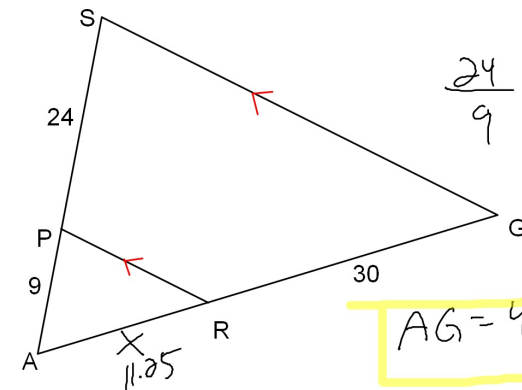
Find the value of y .



$$\frac{14}{4} = \frac{y}{5}$$

$$y = 17.5$$

Find the length of \overline{AG}

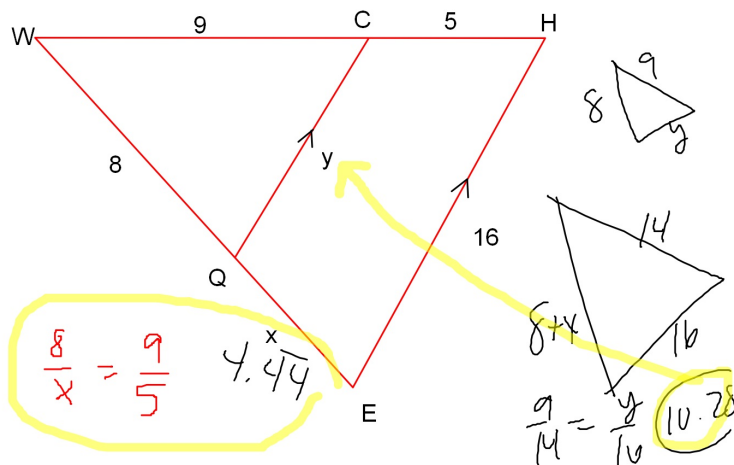


$$\frac{24}{9} = \frac{30}{x}$$

$$x = 11.25$$

$$AG = 41.25$$

Find the values of x and y.



Corollary

Corollary to Theorem 7-4

If three parallel lines intersect two transversals, then the segments intercepted on the transversals are proportional.

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

