

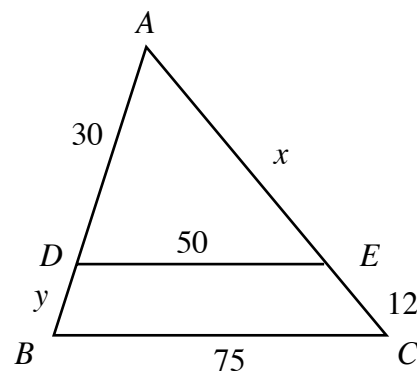
NOTE: These problems are to be done on Engineering paper, using the standard homework format. You may consult with me or with other students on this assignment. Questions about these problems will not be answered during class.

1. Theresa and Bradley both begin walking away from the same point outside of Kunde Hall. Theresa is heading directly East at 2 feet per second and Bradley is heading directly South at 3 feet per second. After 10 seconds, how far apart are they? [To the nearest foot.]

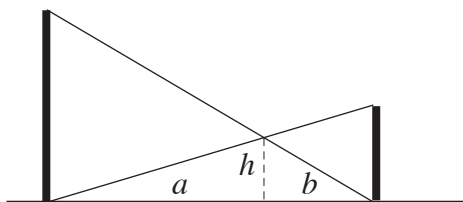
The adjacent figure is to be used for problems 2 and 3.

In the figure, $\overline{DE} \parallel \overline{BC}$.

2. a) Name the similar triangles in the figure.
b) Write an extended proportion that is true for these triangles.
3. Find x and y .



4. Draw each of the following angles in standard position.
 - a) -225°
 - b) $\frac{9\pi}{4}$
5. Wires are stretched from the top of each of two vertical poles to the bottom of the other as shown. If one pole is 4 feet tall and the other 12 feet tall, how far above the ground do the wires cross?



[Hint: Look for two pairs of similar triangles.]