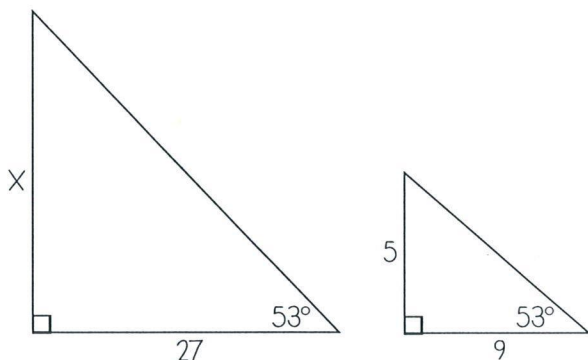# FINDING MISSING MEASURES IN SIMILAR TRIANGLES

*IN SIMILAR TRIANGLES THE CORRESPONDING ANGLES ARE __Congruent__ AND THE CORRESPONDING SIDES ARE __proportional__.

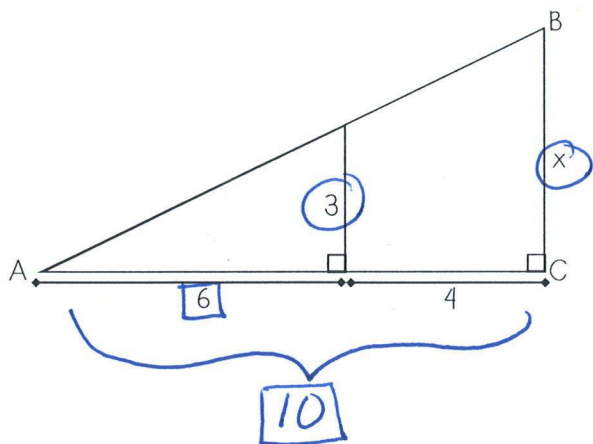*BECAUSE OF THIS YOU CAN USE A __proportion__ TO SOLVE FOR MISSING SIDE LENGTHS IN SIMILAR TRIANGLES.

SHOW YOUR WORK

$$\frac{x}{5} \times \frac{27}{9}$$ Cross multiply
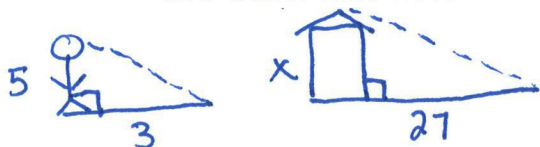
$$9x = 135$$

$$x = 15$$

SHOW YOUR WORK

$$\frac{x}{3} = \frac{10}{6}$$

$$6x = 30$$

$$x = 5$$

SARAH WANTS TO USE SHADOWS TO MEASURE THE HEIGHT OF THE SCHOOL.
SARAH IS 5FT TALL AND CASTS A SHADOW 3FT LONG.
IF THE SCHOOL CASTS A SHADOW THAT IS 27FT LONG HOW TALL IS THE SCHOOL?

SHOW YOUR WORK

$$\frac{27}{3} = \frac{x}{5}$$

$$3x = 135$$

$$x = 45 ft$$