Name: _____
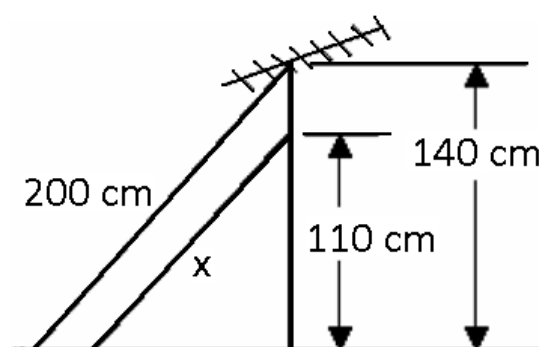
Proportions and Similar Triangles

1) A 200 cm support wire is hooked to the top of a 140 cm TV antenna. How long should another support wire be if it is to be attached to the pole at a height of 110 cm and anchored so that it is parallel to the other support wire?


2) The figure depicts a method of measuring the width of a river. If measurements are taken along the bank as shown. How wide is the river? ($\triangle AED \sim \triangle ABC$)

Grade 9
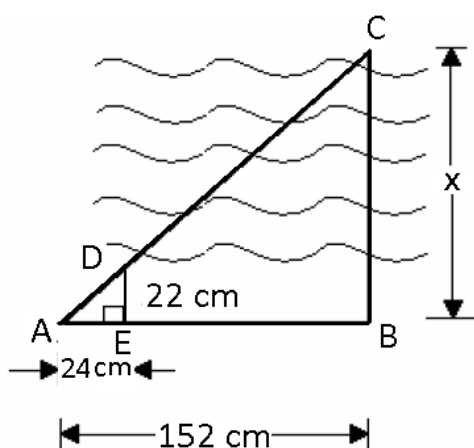
3) A man whose eyes are 5 cm. above the ground can just see a spot in the sea when he is standing 12 cm from the edge of a 70 cm vertical cliff. How far is the spot from where he is standing? ($CDE \sim ABC$)
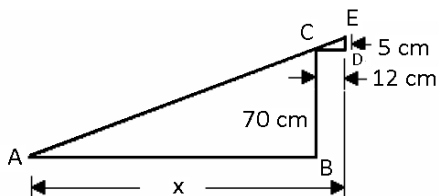
4) A man 6 cm tall casts a shadow 15 cm long at the same time that a flagpole casts a shadow 40 cm long. How tall is the flagpole? (Assume that the sun's rays are parallel).
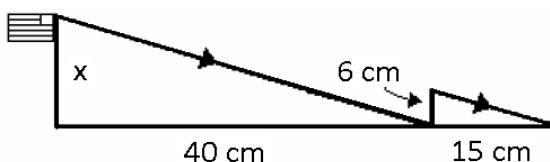
5) At a certain time of day, a 6 ft man casts a 4 ft shadow. At the same time of day, how tall is a tree that casts an 18 ft shadow?