

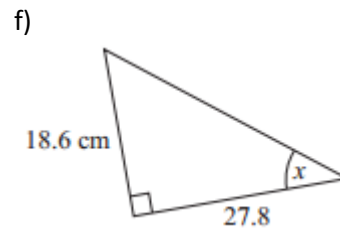
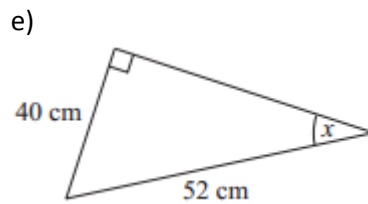
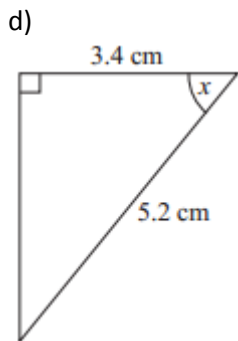
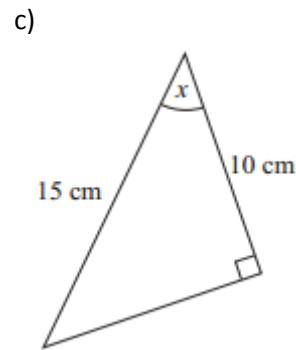
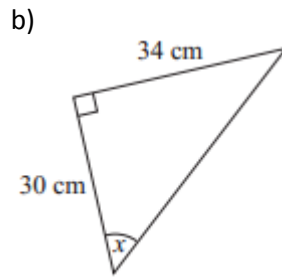
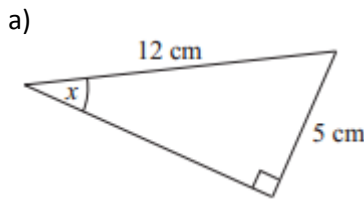
Trigonometry – finding angles

$$\sin x = \frac{\text{opp}}{\text{hyp}}$$

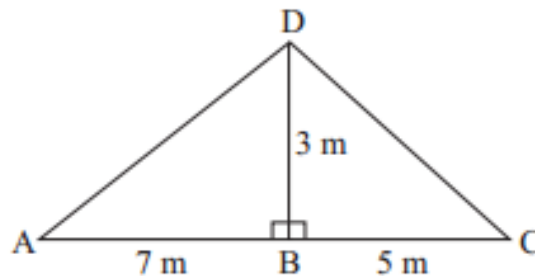
$$\cos x = \frac{\text{adj}}{\text{hyp}}$$

$$\tan x = \frac{\text{opp}}{\text{adj}}$$

1. Find the missing angles in these right angles triangles.

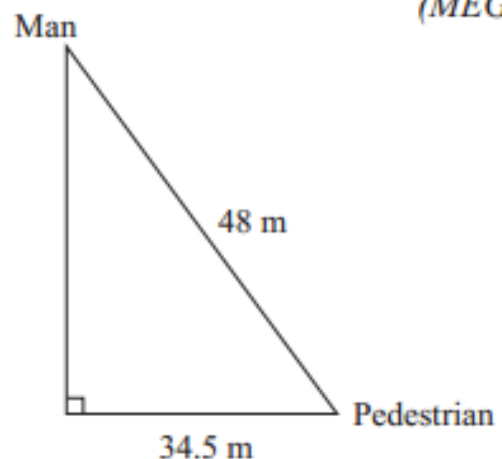


2. The diagram shows a roofing frame ABCD.
 $AB = 7 \text{ m}$, $BC = 5 \text{ m}$, $DB = 3 \text{ m}$, angle $ABD = \text{angle } DBC = 90^\circ$.



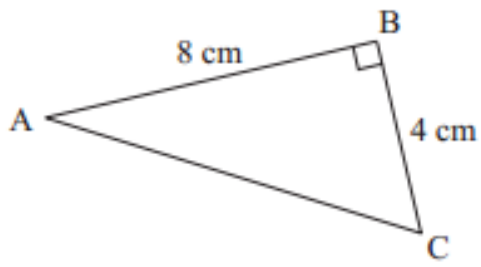
- (a) Calculate the length of AD.
 (b) Calculate the size of angle DCB.

3. From the top of a building a man sights a pedestrian on the street below at a distance of 48 metres away. The pedestrian is 34.5 metres away from the foot of the building. Find the angle of depression of the pedestrian from the man, correct to the nearest degree.

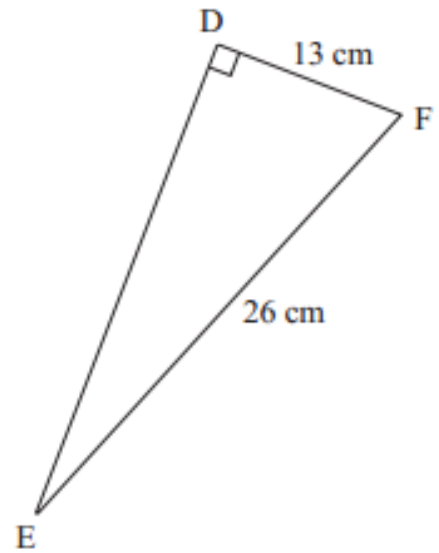


4. Find all unknown angles and lengths for each triangle. Give your answers correct to the nearest cm or degree.

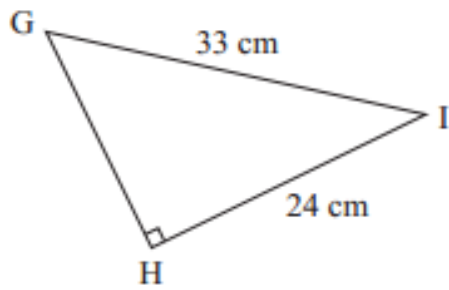
(a)



(b)



(c)



(d)

