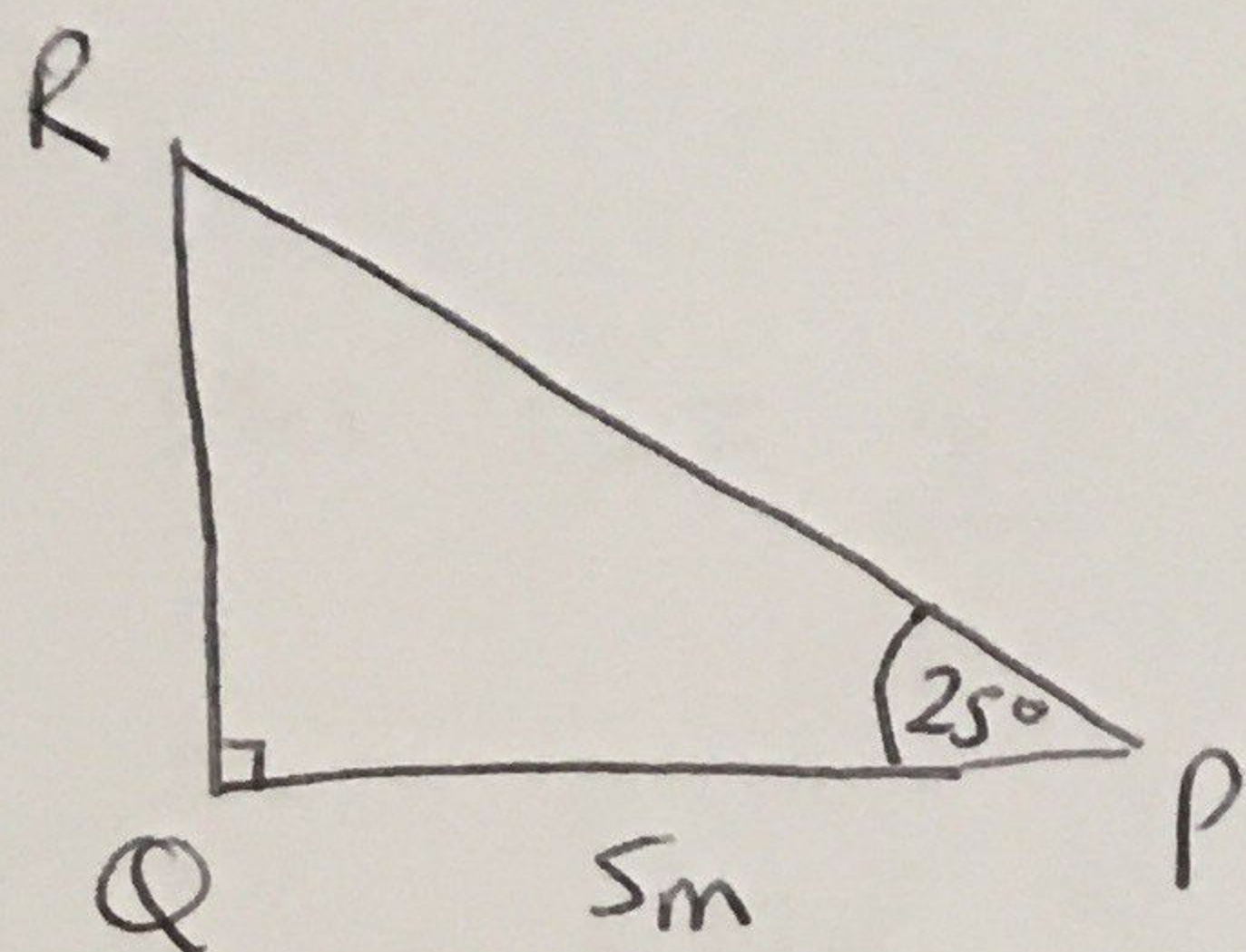


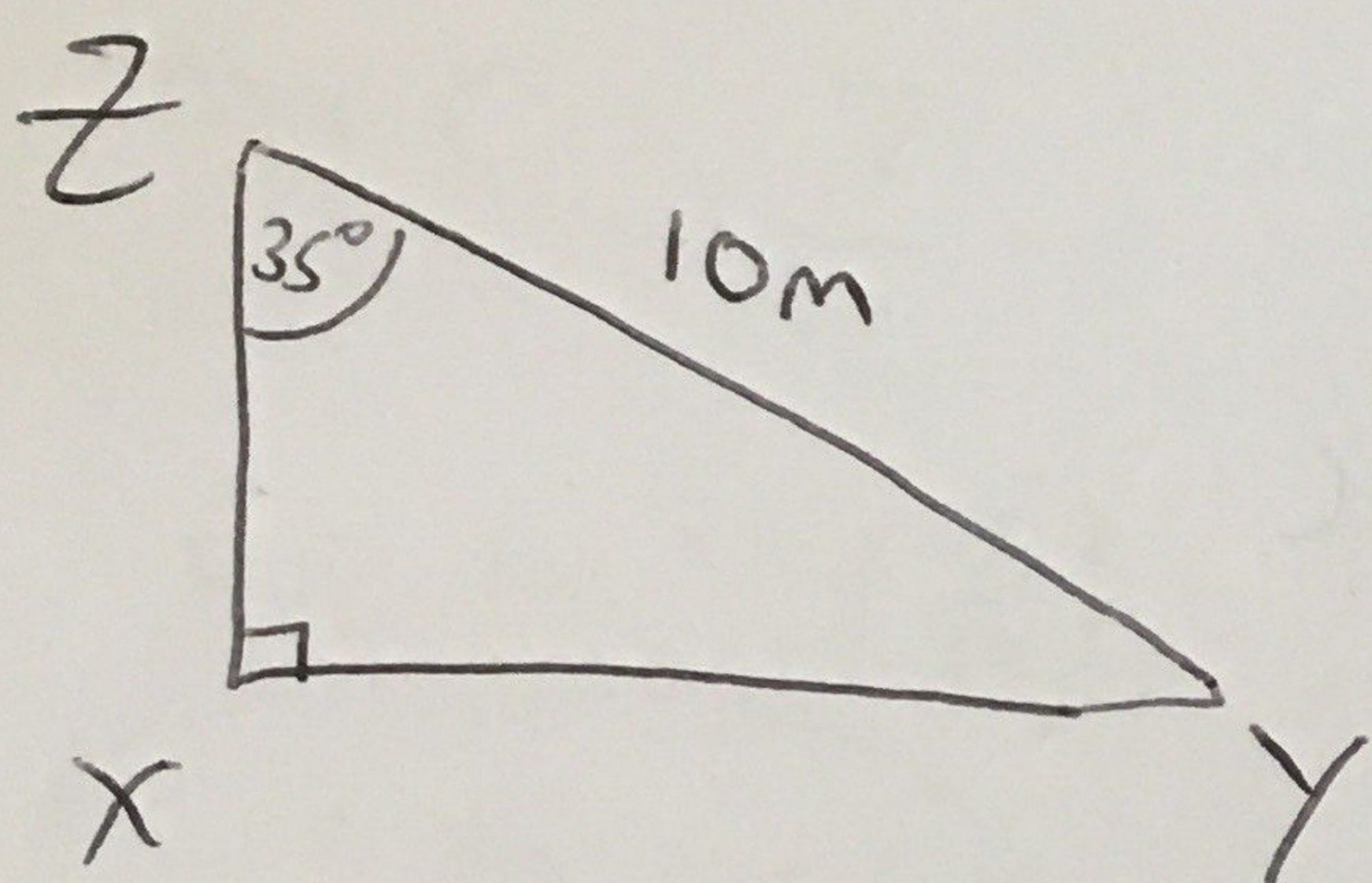
Trigonometry Worksheet

Q1)



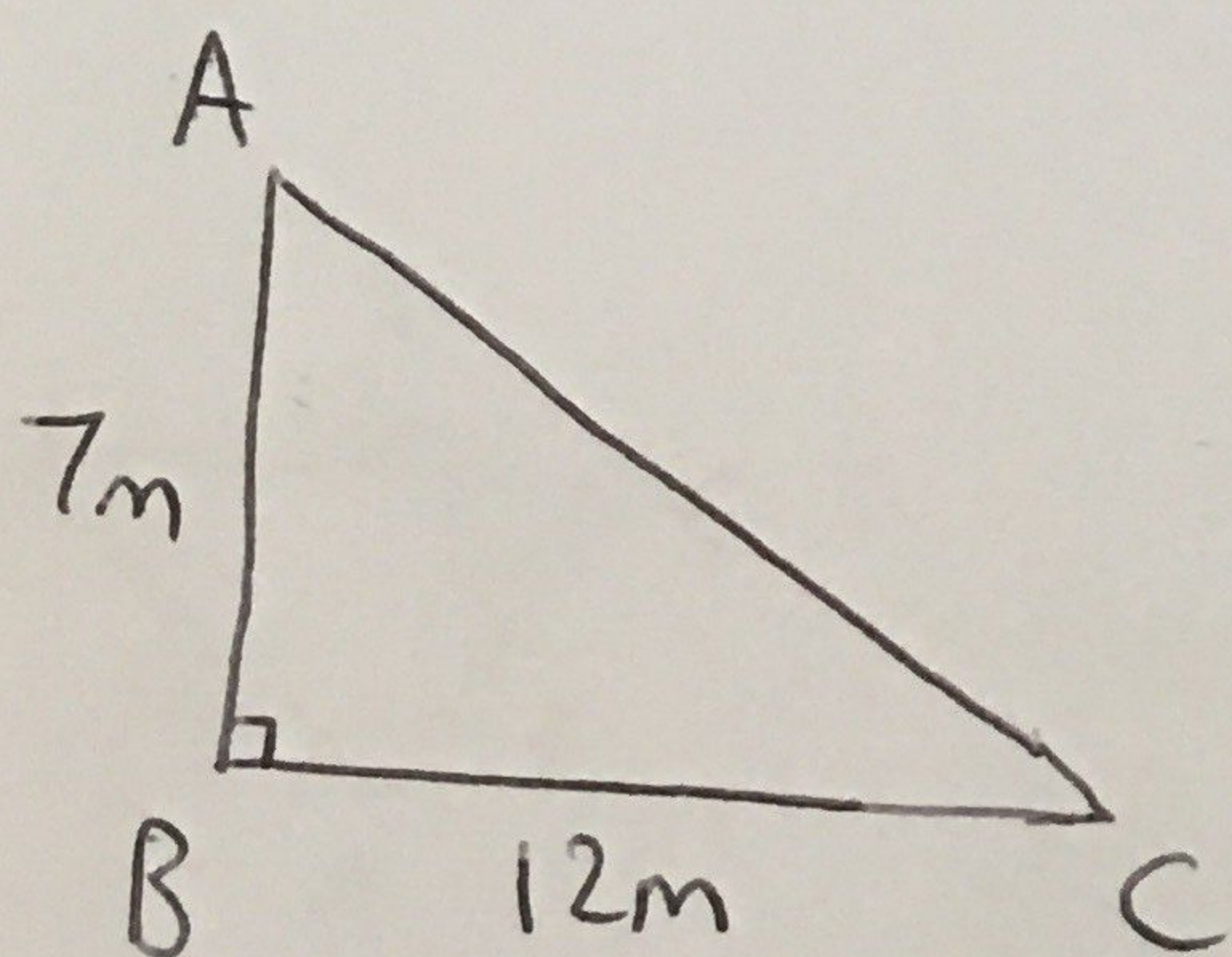
find QR .

Q2)



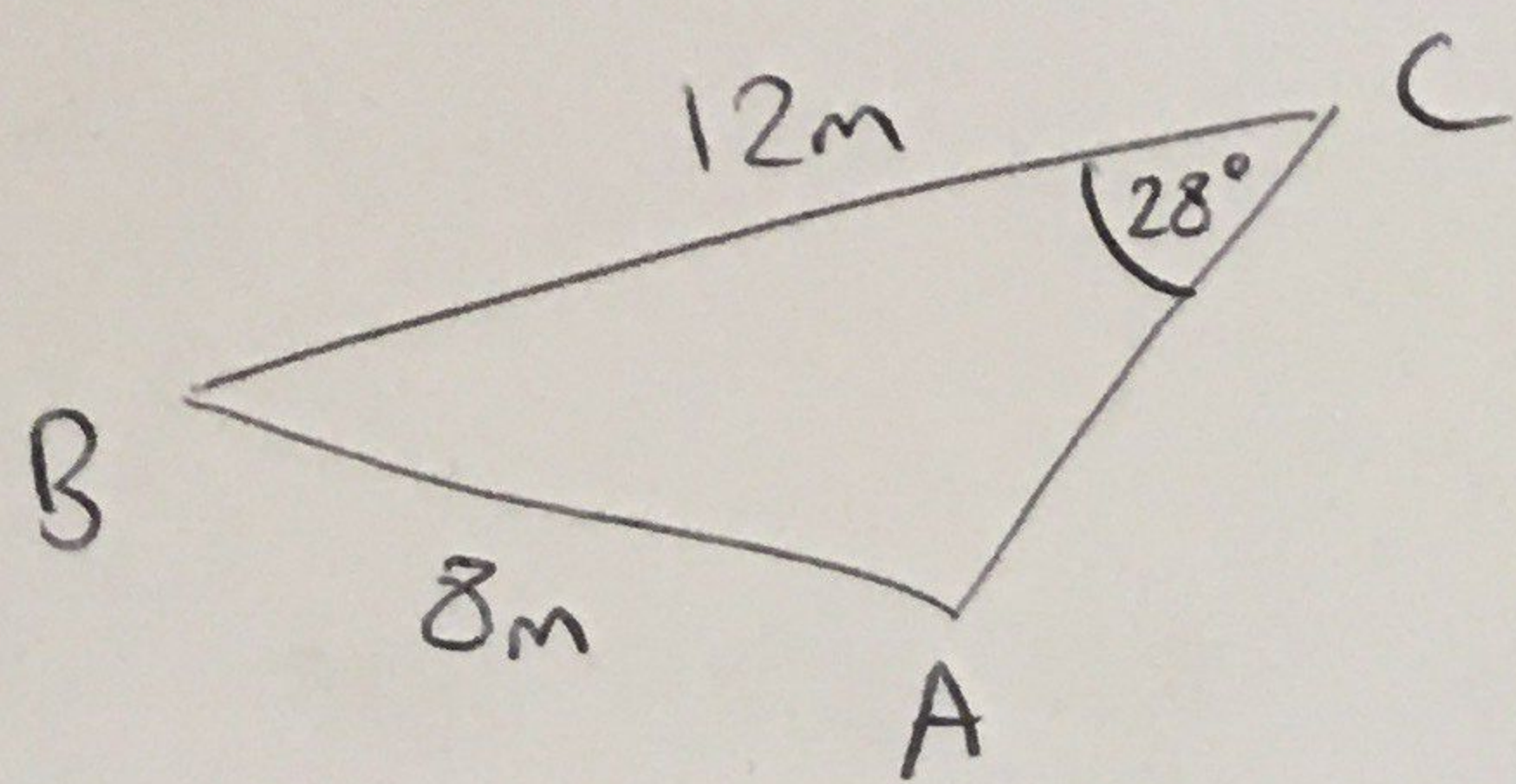
find XY .

Q3)



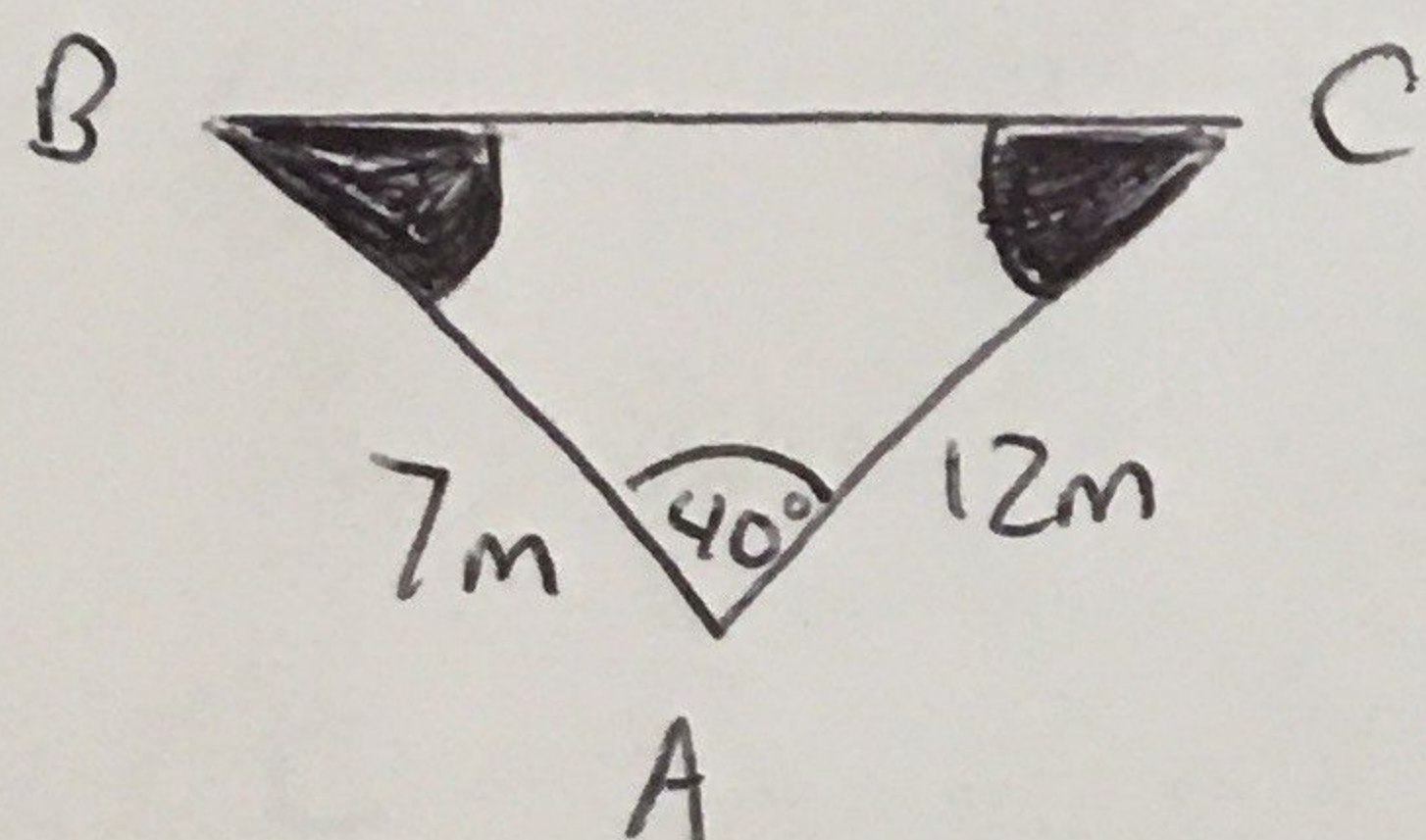
find angle C & angle A .

Q4)



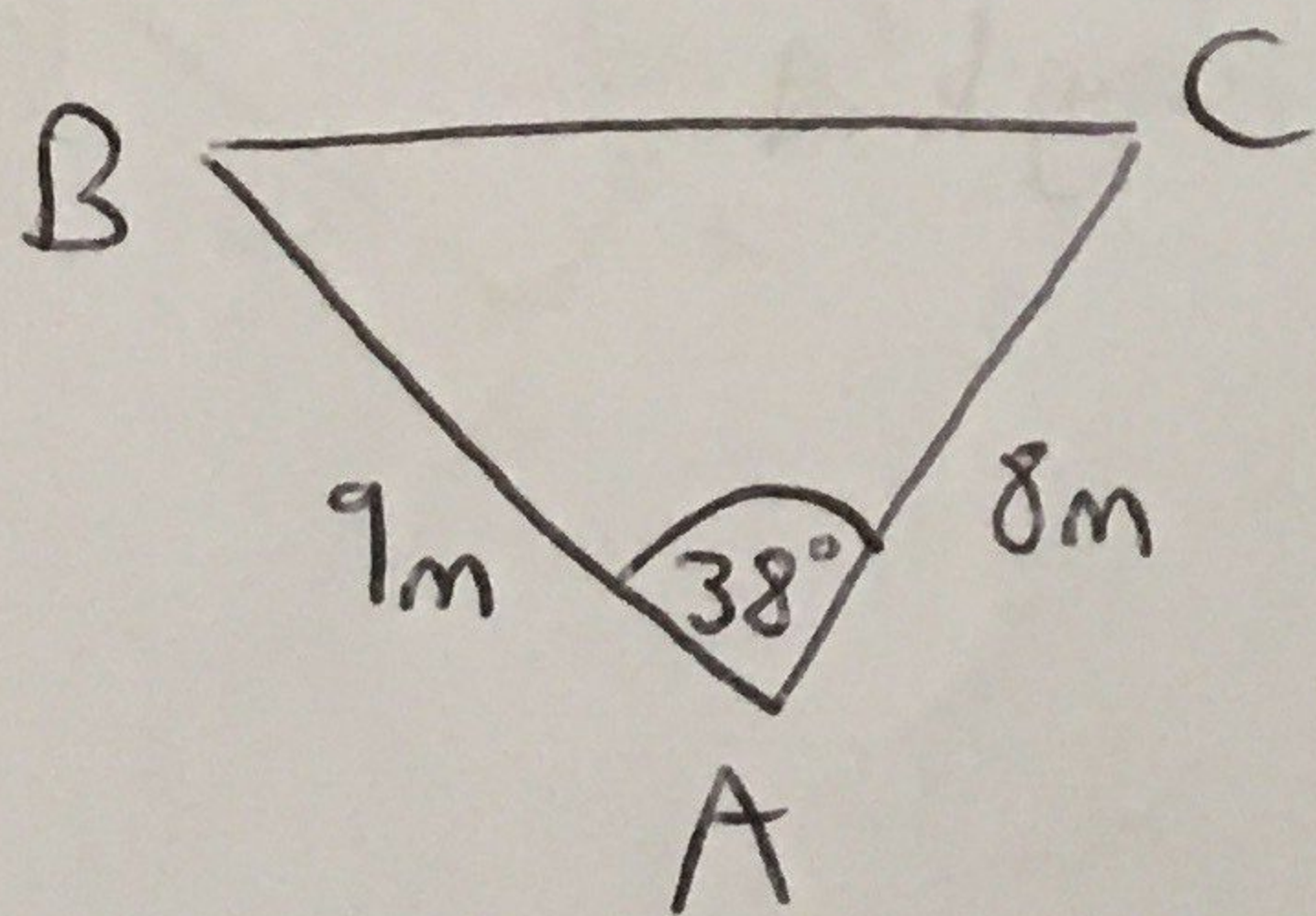
Find angle A, B and length AC

Q5)



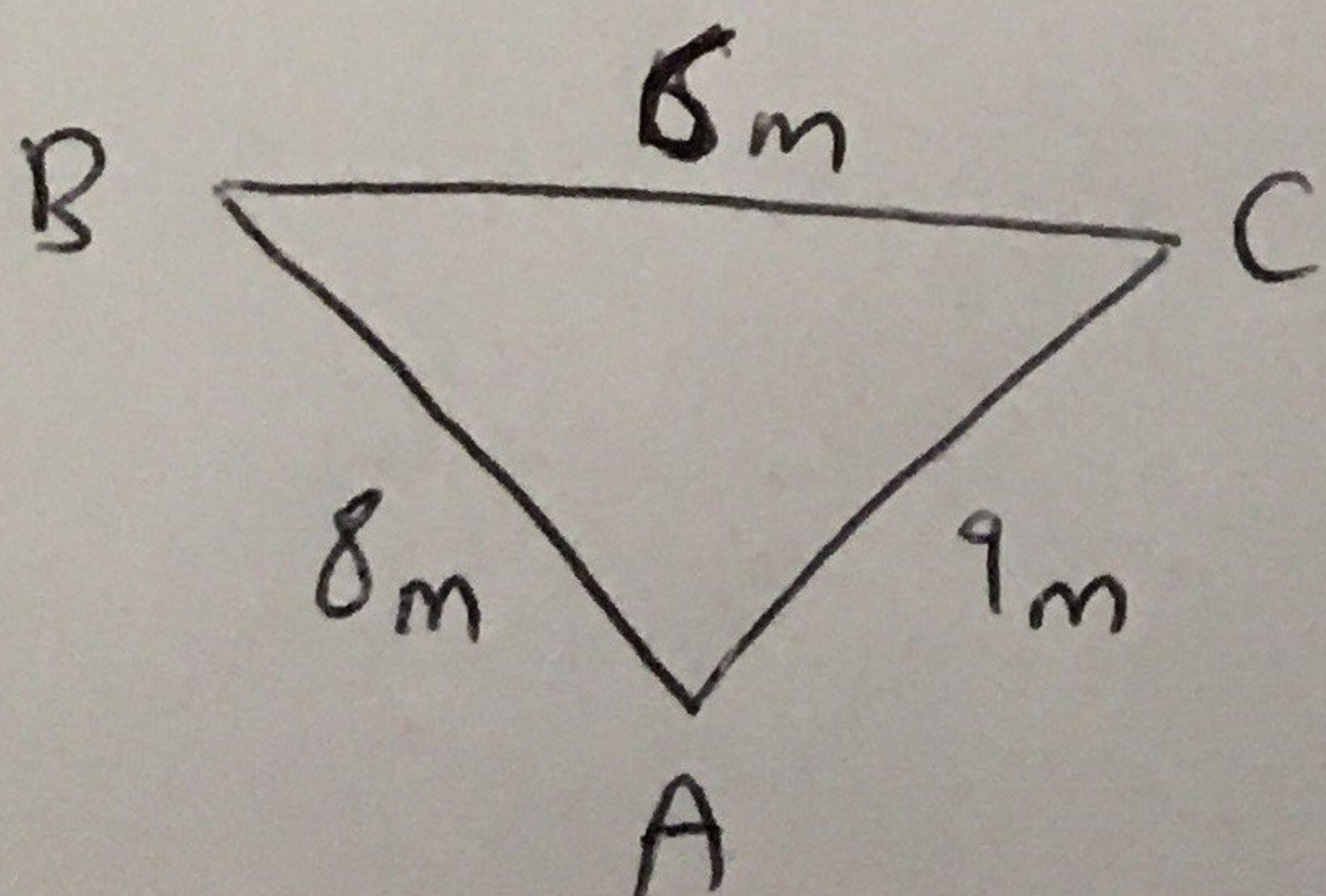
Find length BC.

Q6)



Find length BC

Q7)



Find angle A.

$$Q1) \tan 25 = \frac{QR}{S}$$

$$2.33m = QR$$

$$Q2) \sin 35 = \frac{xy}{10}$$

$$5.74m = xy$$

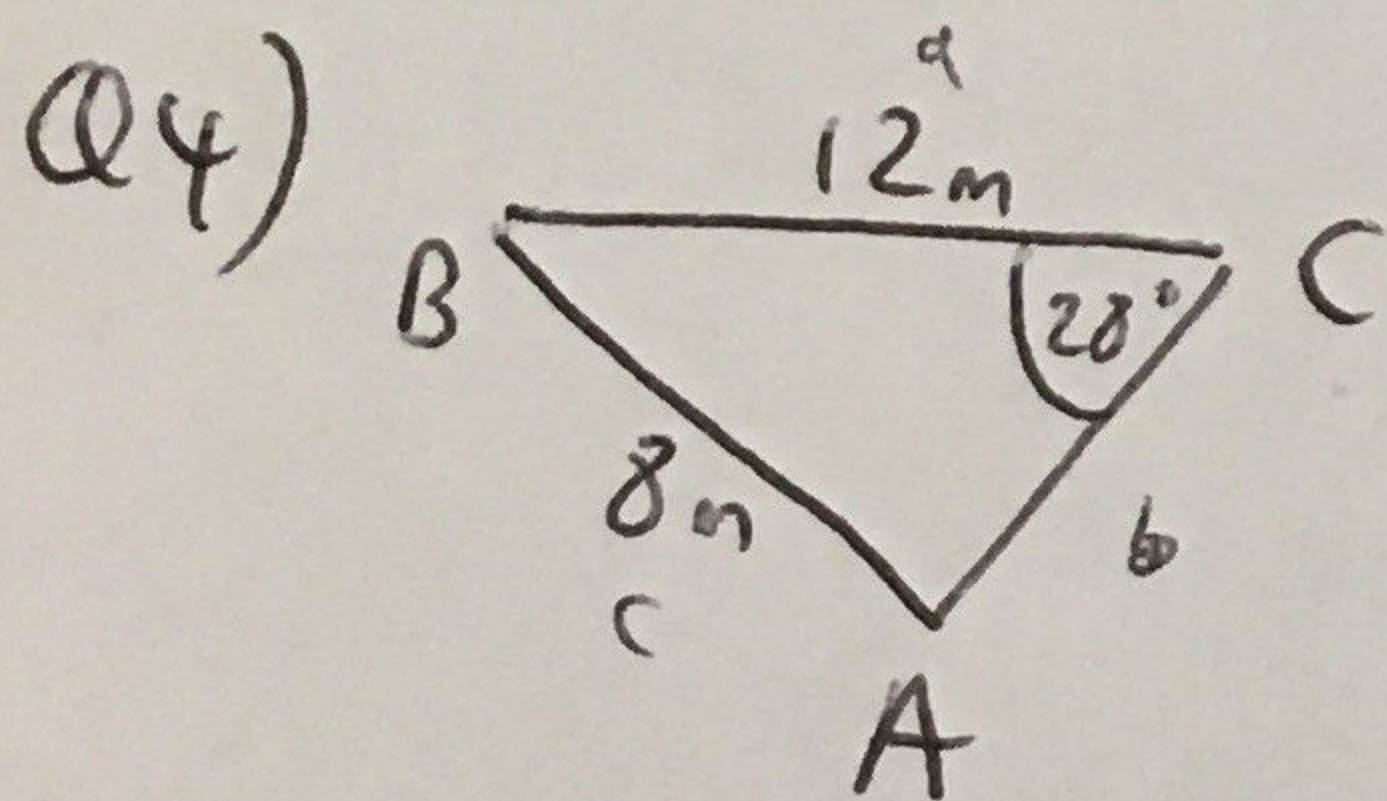
$$Q3) \tan C = \frac{7}{12}$$

$$C = \tan^{-1}\left(\frac{7}{12}\right)$$

$$C = 30.26^\circ$$

$$\therefore A = 180 - 90 - 30.26$$

$$A = 59.74^\circ$$



Sine Rule

$$\frac{12}{\sin A} = \frac{AC}{\sin B} = \frac{8}{\sin 28}$$

$$\frac{12}{\sin A} = \frac{8}{\sin 28}$$

$$\frac{12 \sin 28}{8} = \sin A$$

$$44.77^\circ = A$$

$$B = 180 - 90 - 44.77$$

$$B = 45.23^\circ$$

$$AC = \frac{8 \sin 45.23}{\sin 28}$$

$$AC = 12.10m$$

Q5) Cosine Rule

$$(BC)^2 = (12)^2 + (7)^2 - 2(12)(7)\cos 40$$

$$(BC)^2 = 144 + 49 - 128 \cdot 70$$

$$BC = 8.02m$$

Q6) Cosine Rule

$$(BC)^2 = (8)^2 + (9)^2 - 2(8)(9)\cos 38$$

$$(BC)^2 = 64 + 81 - 113.47$$

$$BC = \sqrt{31.53}$$

$$BC = 5.62m$$

Q7) Cosine Rule

$$(8)^2 = (9)^2 + (8)^2 - 2(9)(8)\cos A$$

$$\cancel{36} = 81 + 64 - 144\cos A$$

$$-109 = -144\cos A$$

$$\frac{-109}{-144} = \cos A$$

$$40.80^\circ = A$$