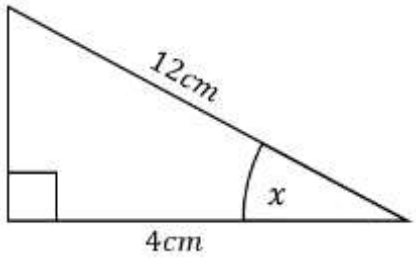
SohCahToa Worksheet

Q1.

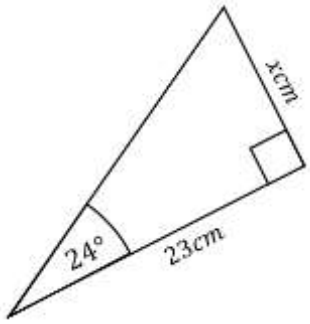
Calculate angle x to one decimal place.



……**[2]**

Q2.

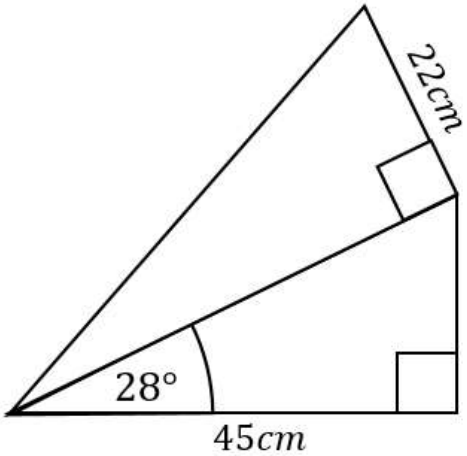
Calculate the value of x giving your answer to 3 significant figures.



……**[2]**

Q3. AO2

Two ramps are joined together to make a steeper ramp for a stuntman to make a jump over a gully. The jump will be successful if the ramp has an elevation between $50°$ and $55°$. Calculate the elevation of the ramp to decide if the jump will be a success or not.



……**[2]**

Q4. AO3

A, B and C are three points at ground level on the same horizontal plane. C is $250m$ west of B and B is north of A. C is on a bearing of $60°$ from A.

A bird spotter situated at point A sees a bird flying westwards over B and C at the same height. When it passed over B, the angle of elevation at the bird spotter was $24°$. Work out the angle of elevation when the bird is over C.

……**[5]**

Q5. AO3

A ship is observed at point A travelling on a bearing of $30°$ $10km$ due south of a lighthouse. Half an hour later it can be seen at point B due East of the lighthouse.

(a) How far has the ship travelled? Give your answer to 3 significant figures.

……**[3]**

(b) C is a point on the ships path which is nearest the lighthouse. Calculate the distance between the lighthouse and point C.

……**[3]**

Answers

Q1.

70.5 degrees

Q2.

10.24m

Q3.

The ramp is 51.35 degrees so the jump is fine!

Q4.

Angle of elevation = 12.5 degrees

Q5.

(a) 11.5km
(b) 5km