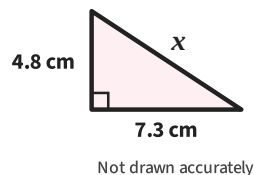


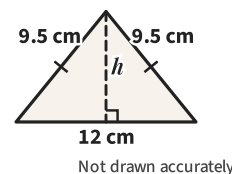
1 Finding the hypotenuse

- a) Find the length x to 1 decimal place.
- b) P is the point $(-3, 5)$ and Q is the point $(4, -1)$. Find the length PQ to 1 decimal place.



2 Finding a shorter side

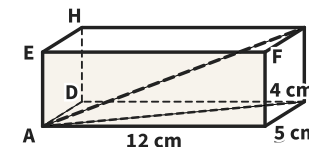
- a) Find the height h of this isosceles triangle to 1 decimal place.
- b) Find the area of the triangle.



3 Pythagoras in 3D

The diagram shows a cuboid. It is not drawn accurately.

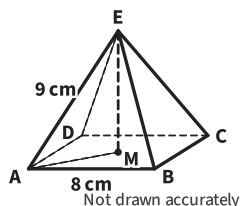
- a) Find the length of the diagonal AC.
- b) Find the length AG to 1 decimal place.



4 Pythagoras in 3D

ABCDE is a pyramid on a square base. E is directly above M, the centre of the base. Each sloping edge is 9 cm.

- a) Find AM to 2 decimal places.
- b) Find the height EM.



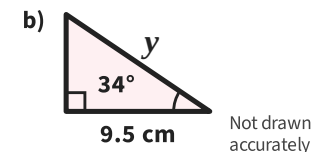
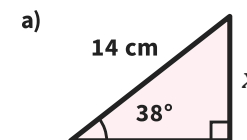
Pythagoras' theorem and trigonometry

revision mat

Higher A

5 Trigonometry: finding a side

Find the lengths x and y . Give each answer to 1 decimal place.



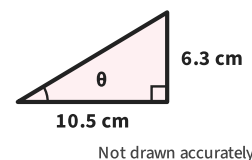
6 Trigonometry: finding a side

From the top of a cliff 45 m high, the angle of depression of a kayak on the sea is 19° .

- a) How far is the kayak from the foot of the cliff?
- b) The kayak paddles straight towards the cliff. The angle of depression is now 37° . How far has it moved?

7 Trigonometry: finding an angle

- a) Find the angle θ to 1 decimal place.
- b) A ramp is 4.2 m long along its slope and rises 0.35 m. A ramp is safe for wheelchairs if it slopes at less than 5° . Is this ramp safe?



8 Trigonometry: finding an angle

Give each answer to 1 decimal place.

- a) Find the angle ADB.
- b) Find the length DC.

