Name:

Exam Style Questions

Pythagoras

Corbettmaths

Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser

You may use tracing paper if needed

Guidance

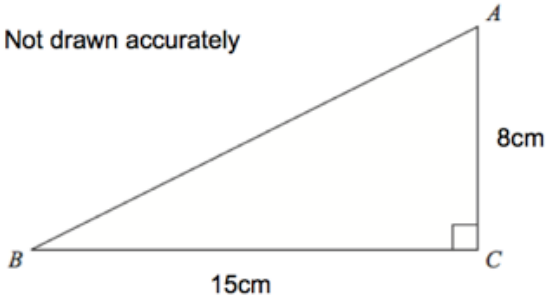
1. Read each question carefully before you begin answering it.
2. Don't spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

Revision for this topic

www.corbettmaths.com/contents

Video 257

1.



ABC is a right-angled triangle.
AC = 8cm.
BC = 15cm.

Calculate the length of AB.

$a^2 + b^2 = c^2$

$8^2 + 15^2 = AB^2$

$64 + 225 = AB^2$

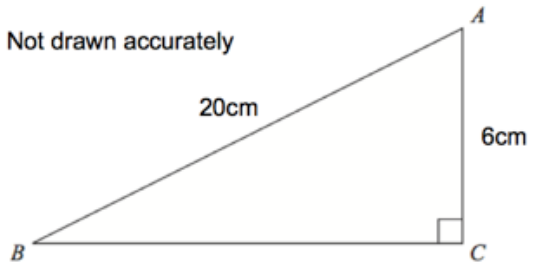
$289 = AB^2$

$\sqrt{289} =$

17 ..... cm

(3)

2.



ABC is a right-angled triangle.
AC = 6cm.
AB = 20cm.

Calculate the length of BC.
Give your answer correct to 1 decimal place.

$20^2 = BC^2 + 6^2$

$400 = BC^2 + 36$

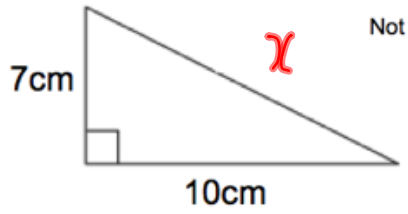
$364 = BC^2$

$\sqrt{364}$

19.1 ..... cm

(3)

3.



Not drawn accurately

Shown is a right-angled triangle.

Work out the perimeter of the triangle

$7^2 + 10^2 = x^2$

$49 + 100 = x^2$

$x^2 = 149$

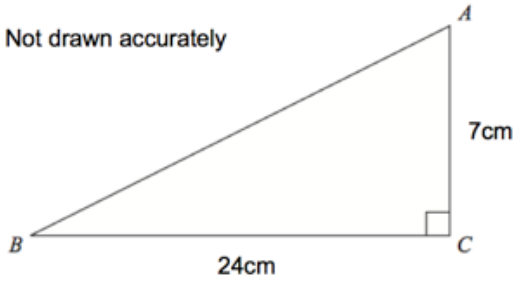
$\sqrt{149} = 12.206..$

$7 + 10 + 12.206..$

29.2 ..... cm

(4)

4.



ABC is a right-angled triangle.
AC = 7cm.
BC = 24cm.

Calculate the length of AB.

$7^2 + 24^2 = AB^2$

$49 + 576 = AB^2$

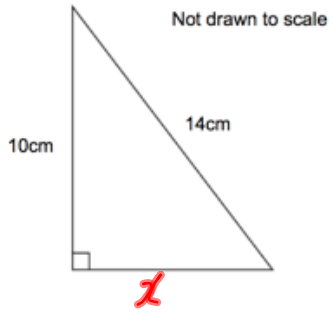
$625 = AB^2$

$AB = \sqrt{625}$

.....25..... cm

(3)

5.



Shown is a right-angled triangle.

Calculate the area of the triangle

$10^2 + x^2 = 14^2$

$100 + x^2 = 196$

$x^2 = 96$

$\sqrt{96} = 9.7979...$

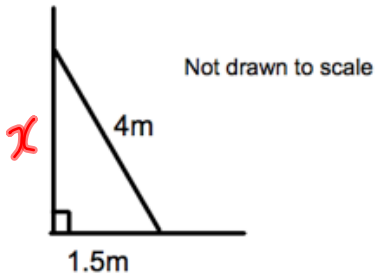
$\frac{1}{2} \times 9.79... \times 10$

$= 48.98...$

48.99 ..... cm^2

(4)

6.



A 4 metre ladder is placed against a vertical wall.
The base of the ladder is 1.5 metres from the base of the wall.

Work out how far the ladder reaches up the wall.

$1.5^2 + x^2 = 4^2$

$2.25 + x^2 = 16$

$x^2 = 13.75$

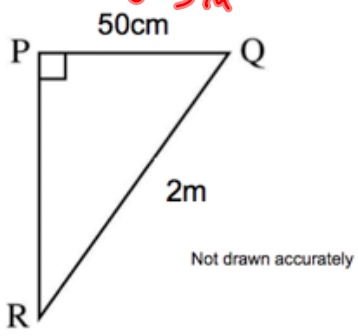
$x = \sqrt{13.75}$

3.708m

(3)

7.

0.5m



Not drawn accurately

PQR is a right-angled triangle.

PQ is 50cm
QR is 2m

Calculate the length of PR.
Give your answer in metres, correct to 1 decimal place.

$PR^2 + 0.5^2 = 2^2$

$PR^2 + 0.25 = 4$

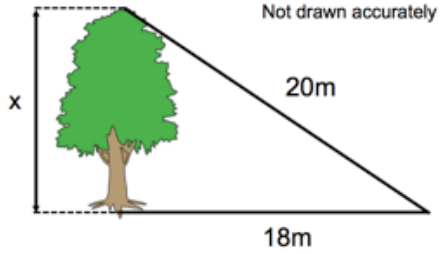
$PR^2 = 3.75$

$PR = 1.936...$

1.9 ..... m

(4)

8.



The distance from a point on the ground to the base of a tree is 18 metres.
The distance from a point on the ground to the top of a tree is 20 metres.

Calculate the height of the tree.
Give the answer correct to 1 decimal place.

$x^2 + 18^2 = 20^2$

$x^2 + 324 = 400$

$x^2 = 76$

$x = 8.7177...$

8.7 ..... m

(3)