Pythagoras

Name:	Class:	Date:

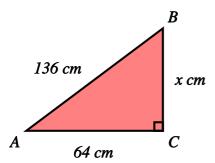| Mark	/ 12	%

1) Find the missing length in the triangle pictured below [1]

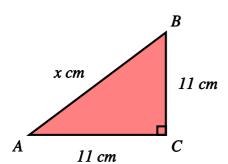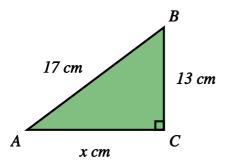**2)** Find the missing length in the triangle pictured below [1]

3) A right-angled triangle has two shorts side of length 12 cm and 16 cm. Find the length of the hypotenuse.

[1]

4) A right-angled triangle has a hypotenuse of length 117 cm and one short side of length 45 cm. Find the length of the other short side.

[1]

5) Find the missing length in the triangle pictured below, giving your answer to 3 significant figures   [1]

6) Find the missing length in the triangle pictured below, giving your answer to 3 significant figures   [1]

7) A right-angled triangle has short sides of length 6 cm and 8 cm. Find the length of the hypotenuse, giving your answer to 3 significant figures.

[1]

8) A right-angled triangle has a hypotenuse of length 18 cm and a short side of length 11 cm. Find the length of the other short side, giving your answer to 3 significant figures.

[1]

9) The base of a ladder is 7 metres from a wall. The height of the wall is 9 metres.
What is the minimum height the ladder must be to reach the top of the wall? (give your answer to 3 significant figures)
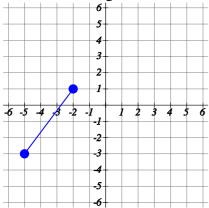
[1]

10) Find the distance between the coordinates $(-2, 1)$ and $(4, -5)$, giving your answer to 3 significant figures
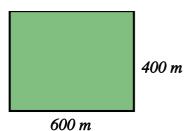
[1]

11) Find the length of the line segment shown below, giving your answer to 3 significant figures   [1]   [1]

12) The diagram shows a field with length 600 metres and width 400 metres.   [1]

400 m

600 m

Find the diagonal distance across the field.
Give your answer to the nearest metre.

Solutions for the assessment Pythagoras

1) $x = 100$ cm

2) $x = 120$ cm

3) $x = 20$ cm

4) $x = 108$ cm

5) $x = 15.6$ cm

6) $x = 11.0$ cm

7) $x = 10$ cm

8) $x = 14.2$ cm

9) Height = 11.4 cm

10)
Distance = $\sqrt{6^2 + 6^2}$
Distance = $\sqrt{72}$
Distance = 8.49`

11)
Length = $\sqrt{3^2 + 4^2}$
Length = $\sqrt{25}$
Length = 5`

12) Diagonal distance = 721 m