Pythagoras Theorem

Objective: Know and use Pythagoras's theorem for right-angled triangles

Question 1
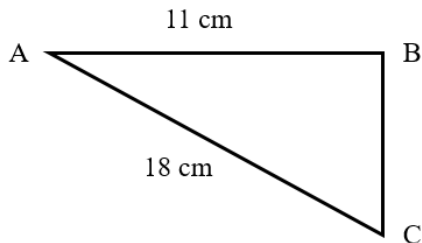

A

Diagram not to scale

9 cm

B

12 cm

C
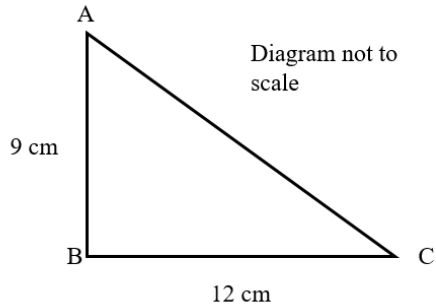
ABC is a right-angled triangle.
AB = 9 cm, BC = 12 cm
Calculate the length of AC.

……………………….

(Total 3 marks)

Question 2

11 cm

A

B

Diagram not to scale

18 cm

C

ABC is a right-angled triangle.
AB = 11 cm, AC = 18 cm
Calculate the length of BC.
Give your answer correct to 1 decimal place.

……………………….

(Total 3 marks)

Question 3

19 m
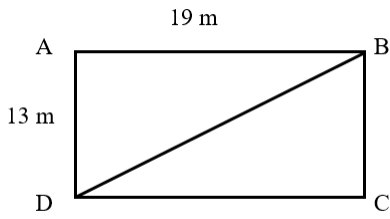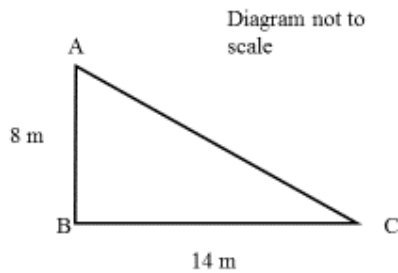
A _____ B

13 m

D _____ C

Diagram not to scale

ABCD is a rectangle.
AB = 19 m, AD = 13 m
Work out the length of the diagonal BD.
Give your answer correct to 3 significant figures.
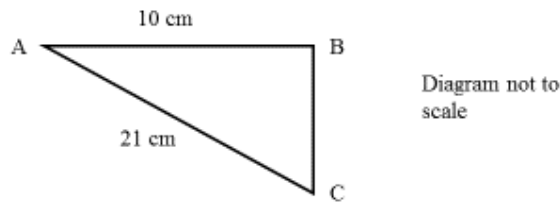
……………………….

(Total 4 marks)

Question 4

Diagram not to scale

A

8 m

B _____ C

14 m

ABC is a right angled triangle.
AB = 8 m, BC = 14 m
Calculate the length of AC.
Give your answer correct to 1 decimal place.
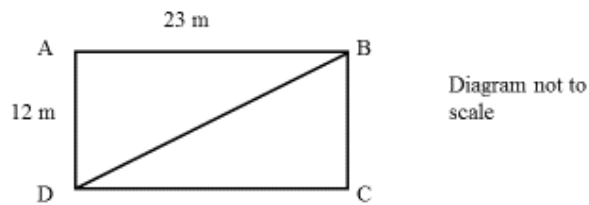
………………………   **(3 marks)**

Grade 5 Questions

Question 5

10 cm

A   B

Diagram not to scale

21 cm

C

ABC is a right angled triangle.
AB = 10 cm, AC = 21 cm
Calculate the length of BC.
Give your answer correct to 1 decimal place.

……………………….

(Total 3 marks)

Question 6

23 m

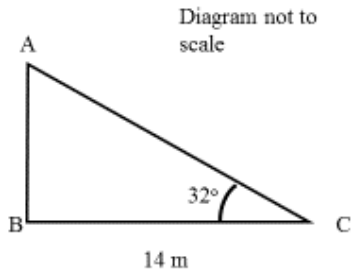A   B

12 m

Diagram not to scale

D   C

ABCD is a rectangle.
AB = 23 m, AD = 12 m
Work out the length of the diagonal BD.
Give your answer correct to 3 significant figures.

…………………….

(Total 4 marks)

Trigonometric Ratios

Objective: Know and use the trigonometric ratios for right-angled triangles

Question 7

Diagram not to scale

A

32°

B

C

14 m

ABC is a right angled triangle.
BC = 14 m and the angle ACB is 32º
Calculate the length of AB. Give your answer to 1 decimal place.

…..…………………

(3)

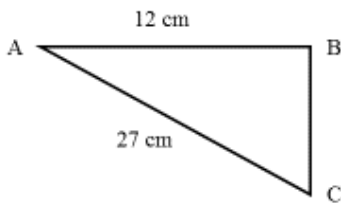**(Total 3 marks)**

Question 8

12 cm

A

B

27 cm

C

Diagram not to scale

ABC is a right angled triangle.
AB = 12 cm, AC = 27 cm
Calculate the angle BAC.
Give your answer correct to the nearest degree.

…..……………

(Total 3 marks)

(3)

Question 9
Using your notes from yesterday, prove Pythagoras' Theorem.