

ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

CLASS 8

Work sheet 12
PYTHAGORAS THEOREM

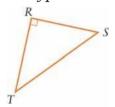
Date:22.2.2021

SUBJECT :Algebra and Geometry

Marks:15

Answer all the following questions(1×15=15)

1 Which side of this triangle is the hypotenuse?



 \mathbf{A} RS \mathbf{B} TR

C ST

DRT

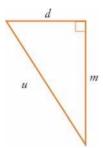
2 . Which is the correct Pythagoras' theorem for this triangle?

A
$$d^2 = m^2 - u^2$$

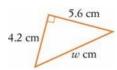
B
$$d^2 = m^2 + u^2$$

C
$$m^2 = d^2 + u^2$$

D
$$u^2 = m^2 + d^2$$



3 Find w.



A 3.70 **B** 9.8

C 7

D 1.4

4 Pythagoras was a mathematician from which ancient civilisation?

- **A** Rome
- **B** Babylonia
- **C** Greece
- **D** Egypt

5 If $r^2 = 10^2 + 4^2$, what is the value of r?

A 196

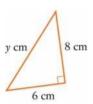
В

10.77

C 9.17

D 116

6. Find y



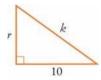
A 24

B10

C 17

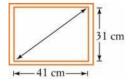
D 6

7.Which is the correct Pythagoras' theorem for this triangle?



- $A r^2 = 10^2 + k^2$
- **B** $10^2 = r^2 -$
- k^2
- **C** $r^2 = k^2 10^2$
- **D** $k^2 = r^2 10^2$

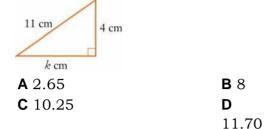
8.A TV screen is 41 cm long and 31 cm high. The length of its diagonal is closest to:



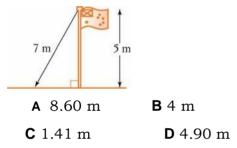
- **A** 49 cm
- **B** 51 cm
- **C** 54 cm
- **D** 48 cm

9.Which one of these is a Pythagorean triad?

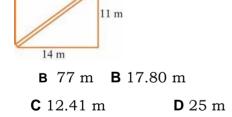
10.Find *k*.



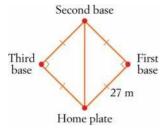
11. flagpole of height 5 metres is tied to the ground by a 7 metre cable. How far from the base of the flagpole is the cable tied?



12.Find the length of the path through the park.



13. baseball field is a square with a side length of 27 metres. What is the distance between the home plate and second base?

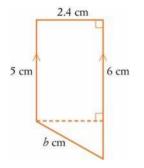


A 7.35 m

B 52 m **C** 40.50 m **D** 38.18

m

14. Find *b*.



c 8.17

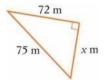
B 3.32

C 2.60

D 2.18

15.

Find *x*.



A 21

B 3

C 15

D 18

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