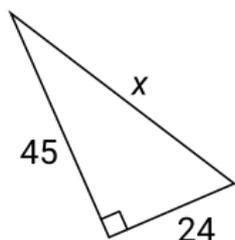


Year 9 Class 16 questions

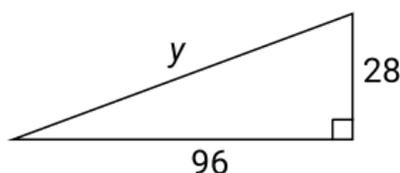
Q1

Find the value of x .



Q2

Find the value of y .



Q3

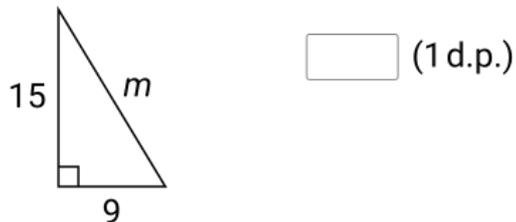
Find m correct to 1 decimal place.



(1 d.p.)

Q4

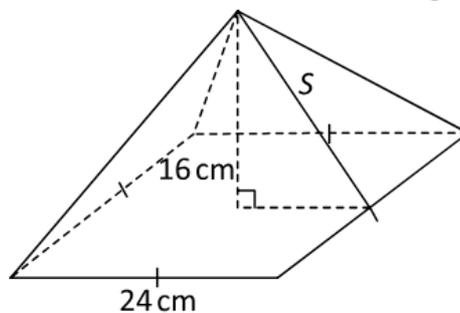
Find m correct to 1 decimal place.



(1 d.p.)

Q5

The base sides of a square pyramid are 24 cm long. The perpendicular height is 16 cm. What is the slant height?



cm

Q6

A 4.5 metre ladder is placed against a wall. The foot of the ladder is 130 cm from the base of the wall. How far up the wall does the ladder reach?

m (1 d.p.)

Q7

$\{m, 64, 80\}$ is a set of 3 numbers written in ascending order which form a Pythagorean triad. Find the value of m .

$$m^2 + 64^2 = 80^2$$

$$m^2 = 80^2 - 64^2$$

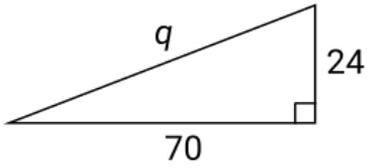
$$m^2 = \text{$$

$$m = \sqrt{\text{$$

$$\therefore m = \text{$$

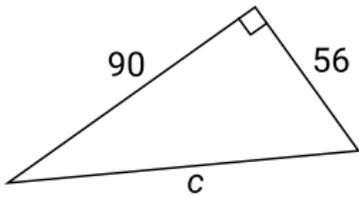
Q8

Find the value of q .



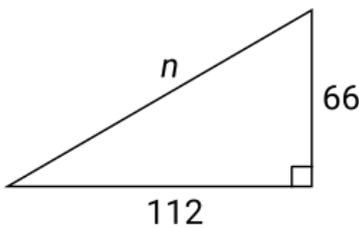
Q9

Find the value of c .



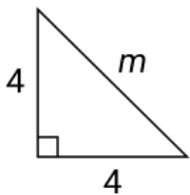
Q10

Find the value of n .



Q11

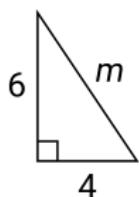
Written as a surd, m equals



- $\sqrt{39}$
- $\sqrt{32}$
- $\sqrt{42}$
- $\sqrt{16}$

Q12

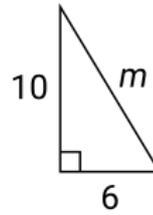
Written as a surd, m equals



- $\sqrt{52}$
- $\sqrt{20}$
- $\sqrt{48}$
- $\sqrt{57}$

Q13

Written as a surd, m equals



- $\sqrt{143}$
- $\sqrt{136}$
- $\sqrt{32}$
- $\sqrt{120}$

Q14

Draw a diagram - it will help.

What is the length of the equal sides of an isosceles right-angled triangle, with hypotenuse 15 cm?

cm (1 d.p.)

Q15

Draw a diagram - it will help.

In an orienteering challenge, Mary runs 600 m South, 450 m West and then 100 m North. How far is she from the starting point?

m (nearest metre)

Q16

Draw a diagram - it will help.

The diagonal of a rectangle is 5 cm and its length is 4 cm. Find the width of the rectangle.

cm

Find the area of the rectangle.

cm²

Q17

A triangle has sides of 7.3 m, 8.2 m and 10.6 m. Is it right-angled?

Yes No

Q18

A triangle has sides of 25m, 7m and 24m.
Is it right-angled?

Yes

No

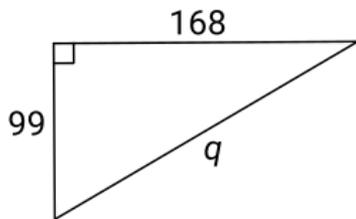
Q19

$\{10, 24, m\}$ is a set of 3 numbers written in ascending order which form a Pythagorean triad. Find the value of m .

$m =$

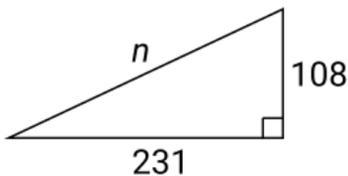
Q20

Find the value of q .



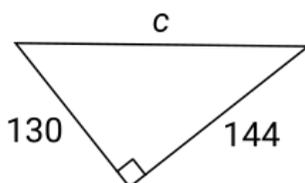
Q21

Find the value of n .



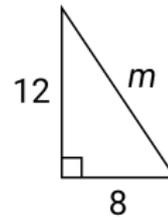
Q22

Find the value of c .



Q23

Written as a surd, m equals



$\sqrt{208}$

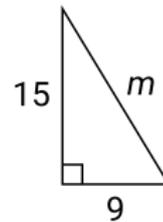
$\sqrt{192}$

$\sqrt{214}$

$\sqrt{40}$

Q24

Written as a surd, m equals



$\sqrt{48}$

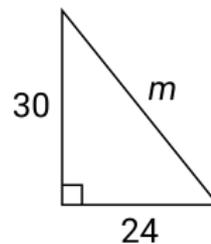
$\sqrt{270}$

$\sqrt{314}$

$\sqrt{306}$

Q25

Written as a surd, m equals



$\sqrt{1478}$

$\sqrt{1440}$

$\sqrt{108}$

$\sqrt{1476}$

Q26

Draw a diagram - it will help.

The area of a rectangle is 60cm^2 . If the width is 5 cm, what is the length of the diagonal?

cm

Q27

Draw a diagram - it will help.

The area of a square is 25cm^2 . What is the length of the diagonal?

cm (1 d.p.)

Q28

$\{16, m, 34\}$ is a set of 3 numbers written in ascending order which form a Pythagorean triad. Find the value of m .

$$m = \boxed{}$$

Q30

$\{m, 48, 52\}$ is a set of 3 numbers written in ascending order which form a Pythagorean triad. Find the value of m .

$$m = \boxed{}$$

Q29

$\{48, m, 73\}$ is a set of 3 numbers written in ascending order which form a Pythagorean triad. Find the value of m .

$$m = \boxed{}$$