

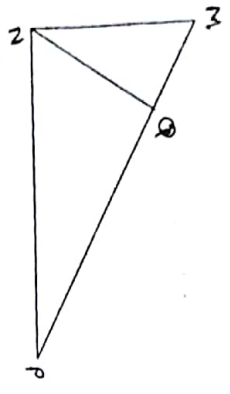
17) Find the perimeter of a square, if its diagonal is $10\sqrt{2}$ cm.

- A)10cm B) $40\sqrt{2}$ cm C)20cm D)40cm

18) Out of the given triplets, which is not a Pythagorean triplet?

- A) (104,96,40) B)(52,20,48)
 C)(32,15,30) D)(61,60,11)

19) $\angle MNP = 90^\circ$, Seg $NQ \perp$ hypotenuse MP .
 $MQ = 4$ $NQ = 6$ then what is the length of seg PQ ?



- a)3 b)15 c)2 d)9

20) If $\triangle PQR \sim \triangle LMN$ & $\frac{PQ}{LM} = \frac{4}{7}$ & $QR = 6$ cm

Then what is the length of seg MN ?

- A)10cm B)14cm C)10.5cm d)9cm

Q1 A) Choose the correct alternative from those given below each question and write the correct option in the box:-

1) Which of the following is the Pythagorean triplet?
 A) (1,5,10) B)(3,4,5) C)(2,2,2) D) (5,5,2)

2) In a right angled triangle, if the sum of the squares of the sides making a right angle is 169, then what is the length of the hypotenuse?
 A) 15 B) 13 C) 5 D) 12

3) Out of the three dates given below which date constitutes a Pythagorean triplet?
 A) 15/08/17 B) 16/08/16 C) 3/5/17 D) 4/9/15

4) Which of the following is not the test of similarity?
 A) AAA test B) SAS test C) SAA Test D) SSS test

5) The corresponding medians of the two similar triangles are in the ratio 4:7. If their respective areas are A_1 & A_2 find $A_1 : A_2$.
 A) 16:49 B) 4:7 C) 7:4 D) 49:16

6) $\triangle ABC \sim \triangle DEF$ and $\angle A = 45^\circ$, $\angle E = 87^\circ$ then $\angle C =$
 A) 45° B) 87° C) 48° D) cannot be determined.

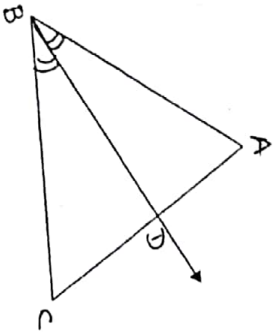
7) What is the length of a diagonal of a square of side 10cm?
 A) $10\sqrt{3}$ cm B) $10\sqrt{2}$ cm C) 10cm D) $5\sqrt{2}$ cm

- 8) If 2 sides of the right angled triangle are 3 and 4 then, what is the length of the third side?
 A) 5 B) $\sqrt{7}$ C) 5 or $\sqrt{7}$ D) none of these

- 9) Ram and Shyam start cycling from some point A. Ram travels due east and Shyam travels due north. After 1 hour Shyam covers 12km and Ram travels 5km. How far are they from each other?
 A) 12km B) 5km C) 13km D) 17km

- 10) A vertical stick 40m long casts a shadow 20m long on the ground. At the same time, a tower of height _____ casts a shadow 50m long on the ground.
 A) 100m B) 50m C) 25m D) 150m

- 11) In $\triangle ABC$, angle bisector of $\angle ABC$ intersects side AC in point D which of the following statement is not true



- a) $\frac{AB}{BC} = \frac{AD}{DC}$ b) $\frac{AB}{AD} = \frac{BC}{DC}$
 c) $\frac{CD}{AD} = \frac{BC}{AB}$ d) $\frac{AB}{DC} = \frac{AD}{BC}$

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- 12) In $\triangle ABC$, Seg AM is the median, $AB^2 + AC^2 = 410$ and $BC = 12$, then $AM = ?$
 A) 12 B) 13 C) $\sqrt{12}$ D) $\sqrt{13}$

- 13) The length of the hypotenuse PR of an isosceles right angled $\triangle PQR$, where PQ is 4cm is
 A) 4cm B) $4\sqrt{3}$ cm C) $4\sqrt{2}$ cm D) 16cm

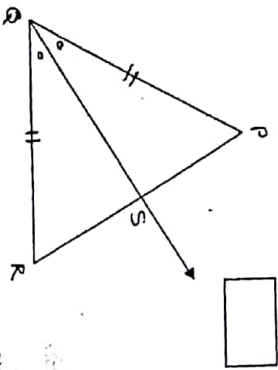
- 14) Altitude on the hypotenuse of a right angled triangle divides it in two parts of lengths of 4cm and 9cm. Find the length of the altitude.

- A) 9cm B) 4cm C) 6cm D) $2\sqrt{6}$ cm

- 15) The height and base of a right angled \triangle are 24cm and 18cm. Find the length of its hypotenuse.

- A) 24cm B) 30cm C) 15cm D) 18cm

- 16) In the fig, ray QS is the bisector of $\angle PQR$ & $PQ = QR$ then $\frac{PS}{SR} =$ _____



- A) 1:1 B) 1:2 C) 2:1 D) cannot be determined