NATIONAL EDUCATION SOCIETY'S HIGH SCHOOL
BHANDUP (W), MUMBAI – 400 078.

STD. :-IX, DIV. :- _____ MARKS :- 20
ROLL NO. :- _____ SUB. :- Mathematics -II TIME :- 1Hr.
Supervisor's Sign:- _____ No of Pages-04

QI 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) $\Delta ABC \sim \Delta DEF$ and $\angle A=45^0$, $\angle E=87^0$ then $\angle C=$____ ☐
A)45^0 B)87^0 C)48^0 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

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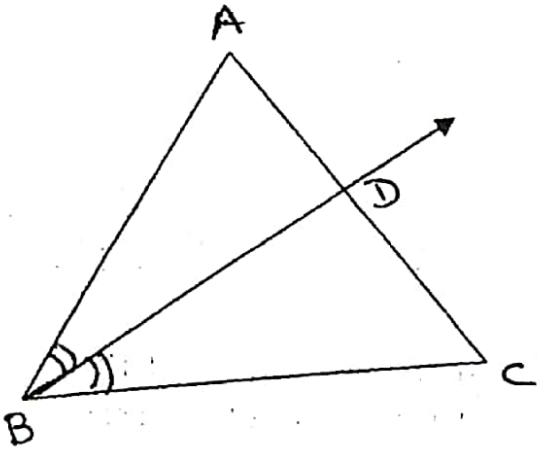
10)A vertical stick 40m long casts a shadow 20m long on the ground. At the same time, a tower of height _____ casts a shadow 50m long on the ground.

A) 100m B)50m C)25m D)150m

11)InΔABC ,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) $\frac{AB}{DC} = \frac{AD}{BC}$

12)In ΔABC, 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 Δ PQR ,where PQ is 4cm is

A) 4cm B) $4\sqrt{3}$ cm C) $4\sqrt{2}$ cm D) 16cm

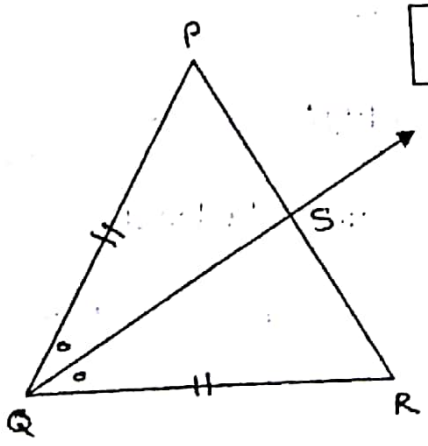
14) Altidue on the hypotenuse of a right angled triangle divides it in two parts of lengths of 4cm and 9cm. Find the length of the altitude.

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

15) The height and base of a right angled Δ 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

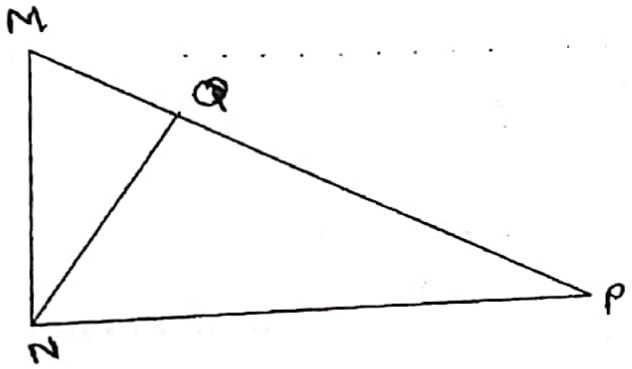
17) Find the perimeter of a square, if its diagonal is $10\sqrt{2}$cm.

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) $\angle MNP = 90^0$, Seg NQ $\perp$ hypotenuse MP .
MQ =4 NQ =6 then what is the lengh of seg PQ?



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

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

Then what is the length of seg MN?

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