

DATE : 20/05/2012
STD : X

IDEAL TEST SERIES
SUBJECT: GEOMETRY

MARKS : 30
TIME : 1 HR

Q.1. Solve any two

[2 M]

- (1) $A_1 : A_2 = 4 : 5$ and $b_1 : b_2 = 3 : 2$ Find $\frac{h_1}{h_2}$
- (2) Similar triangles are congruent triangles .Say true or false.
- (3) b is the Geometric Mean of a and c if $b = 6$ find a and c (open ended question)

Q.2. Solve any three questions

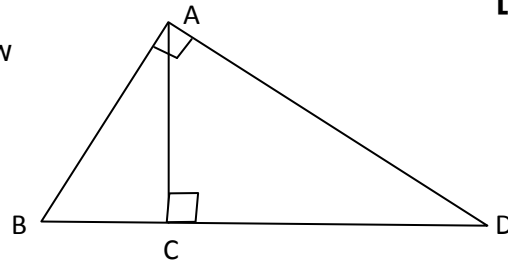
[6 M]

- (1) The ratio of the areas of two triangles with equal height is 3 : 2. The base of the larger triangle is 18 cm. Find the corresponding base of smaller triangle.
- (2) $\Delta ABC \sim \Delta PQR$ $AB : DC = 4 : 6$
 Find $\frac{A(\Delta ABC)}{A(\Delta PQR)}$
- (3) In ΔDEF $PQ \parallel EF$ $D-P-E$ and $D-Q-F$ $DQ = 1.8$ $QF = 5.4$ $PE = 7.2$ find DP
- (4) In ΔPQR M is the mid point of QR. $PQ = 11$, $PR = 17$, $QR = 12$ find PM.

Q.3. Solve any three

[9 M]

- (1) In ΔABD $\angle A = 90^\circ$ $AC \perp BD$ To show
 - (i) $AB^2 = BC \cdot BD$
 - (ii) $AD^2 = BD \cdot CD$
 - (iii) $AC^2 = BC \cdot CD$



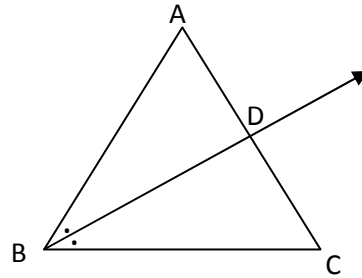
- (2) Sides of a rhombus is 10 cm and one diagonal is 16 cm. Find the other diagonal.
- (3) $\Delta ABC \sim \Delta DEF$ $A(\Delta ABC) = 9 \text{ cm}^2$
 $A(\Delta DEF) = 16 \text{ cm}^2$ $BC = 2.1 \text{ cm}$ Find EF.

(4) Ray BD bisect \angle ABC

AD = 12.5 AB = 25

BC = 36 find

Pelimeta of Δ ABC



Q.4. Solve any two

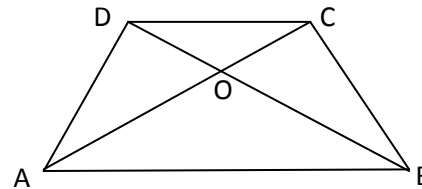
[8 M]

- (1) If a line parallel to a side of a triangle intersect the other sides in two distinct points, then the line divides those sides in proportion prove it.
- (2) In a right angled triangle, the Square of hypotenuse is equal to the sum of the Squares of the remaining two Sides.

(3) Seg AB || Seg DC

AO = 3x - 19 OC = x - 5

OD = 3 OB = x - 3

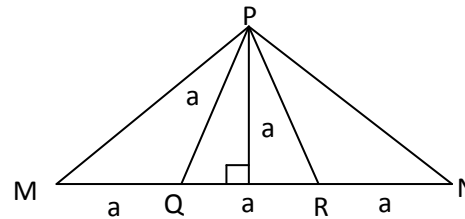


Q.5. Solve any one

[5 M]

(1) To Show

PM = PN = $\sqrt{3}a$



(2) In Δ ABC $m \angle B = 90$ Seg AN and

Seg CM are the medians To prove $H (AN^2 + CM^2) = 5 AC^2$.