Mensuration

1. The length of equal sides of an isosceles triangle is 10 m and area 48 m^2. Find the length of the base.

2. What the length of each side of an equilateral triangle is increased by 2 m, its area is increased by $6\sqrt{3}$ m. Find the length of side of the triangle.

3. The perpendicular of a right angled Δ is 6 cm less than $\frac{11}{12}$ times of the base and the hypotenuse is 3 cm less than $\frac{4}{3}$ times of the base,

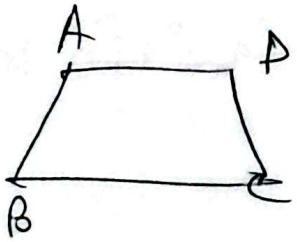
a. Find length of the base

b.

4. The length of a garden is 40 m and the breadth is 30 m. There is a pond inside the garden with border of equal width surrounding it. If the area of the pond is 1/2 of that of the garden, find the length and breadth of the pond.

5. The length of two sides of a parallelogram are 30 cm and 26 cm. If its smaller diagonal is 28 cm, find the length of the other diagonal.

6. The $\square ABCD = ?$



AD = 7 cm
BC = 12 cm
AB = 10 cm
CD = 8 cm

7. The diameter of a circle is 28 cm. If the circumfe of the circle is equal to the perimeter of an equilateral Δ, determine the ratio between them.

8. The ratios of the length, width, height of a rectan solid are 21 : 16 : 12 and the length of the diago is 87 cm. There is a road around a circular field The outer circumferance of the road is greater than the inner circumferance by 44 m.

a. Determine the area of the whole surface of th solid.

c. Find the width of the road.

9. The outer dimensions of a rectangular wooden b are 9 cm, x cm and 5 cm respectively. The area the whole internal surface is 142 cm². and if t thickness of the wood is equal of the box. Determine i