Octahedral classes, kharadi

2nd floor, yashwant plaza, near bank of India,

CLASS 08 - MATHEMATICS

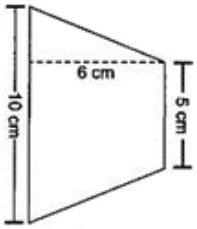
Mensuration

Time Allowed: 1 hour and 30 minutes **Maximum Marks: 38**

Section A

1. Answer the following **[5]**

   a) Find an area of the following trapezium (Figure given below)



   b) Given a cylindrical tank, in which situations will you find surface area and in which situations volume.
   (a) To find how much it can hold.
   (b) Number of cement bags required to plaster it.

   c) Find the area of a rhombus whose diagonals are of lengths 10 cm and 8.2 cm.

   d) Find the height of a cuboid whose base area is 180 cm^2 and volume is 900 cm^3?

   e) The diagonal of a rhombus are 7.5 cm and 12 cm. Find its area.

2. match the column **[2]**

   a) **Match the following:**

Column A	**Column B**
a. All sides equal	i. Three
b. Number of sides in octagon	ii. Kite
c. Adjacent sides equal	iii. Square
d. Sides of triangle	iv. Eight

   b) **Match the following:**

Column A	**Column B**
a. Number of sides in septagon	i. Rectangle
b. Opposite sides equal	ii. Seven
c. Number of sides in pentagon	iii. Kite
d. Angles between unequal sides equal	iv. Five

3. Answer the following **[15]**

   a) A milk tank is in the form of cylinder whose radius is 1.5 m and length is 7 m. Find the

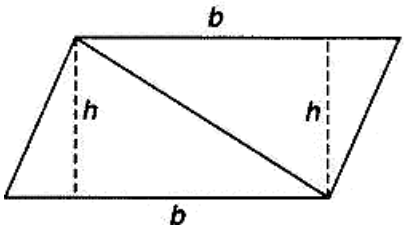
quantity of milk in litres that can be stored in the tank ?

b) The area of trapezium is 34 cm^2 and the length of one of the parallel sides is 10 cm and its height is 4 cm. Find the length of the another parallel side.

c) Daniel is painting the walls and ceiling of a cuboidal. Hall with length, breadth and height of 15 m, 10 m and 7 m respectively. If each can of paint covers 100 m^2 of area, how many cans of paint will she need to paint the room ?

d) Water is pouring into a cuboidal reservoir at the rate of 60 liters per minute. If the volume of reservoir is 108 m^3, find the number of hours it will take to fill the reservoir.

e) We know that parallelogram is also a quadrilateral. Let us also split such a quadrilateral into two triangles, find their areas and hence that of the parallelogram. Does this agree with the formula that you know already?



4. Answer the following **[16]**

a) Three cubes each of side 10cm are joined end to end. Find the surface area of the resultant figure in metres.

b) A suitcase with measures 80 cm × 48 cm × 24 cm is to be covered with a trapaulin cloth. How many metres of trapaulin of width 96 cm is required to cover 100 such suitcases ?

c) The length of a hall is 18m and width 12m. The sum of the areas of the floor and flat roof is equal to the sum of the areas of the four walls. Find the height and volume of the hall?

d) Three cube of metal whose edges are 6cm, 8cm and 10cm respectively, are melted to form a single cube. Find the edge of the new cube.