2D,3D

1.Side of equilateral triangle 16

Equilateral triangle 64root3

2.If the Sides of a triangle are 26cm, 24cm and 10cm what is its area?
120sq.cm
130 sq.cm
312 sq.cm
315 sq.cm

Ans: Scalene triangle: (30*4*6*20)^1/2 =5*4*6=120cm²

3.Find the area of a parallelogram with base 24 cm and height 16 cm.

262 sq.cm
384 sq.cm
192 sq.cm
131 sq.cm

Ans: Parallelogram: base x height= 384 sq.cm

4. A cube of side one meter length is cut into small cubes of side 10 cm each. How many such small cubes can be obtained?

Ans: 100*100*100/(10*10*10)=1000

5. A park in the form of a right-angled triangle has a base and height of 10 m and 15 m respectively. Find the area of the park?

45
75
150
65

Ans: 1/2 *10*15 = 75 sq.m

6. There is a rectangular Garden whose length and width is 60m X 20m.There is a walkway of uniform width around the garden. Area of the walkway is 516 sq.m. Find the width of the walkway?

Ans: (60+2x)*(20+2x) - 60*20 = 516 so, x=3 sq.m

7. Find the length of the longest pole that can be placed in a room 12 m long, 8m broad and 9 m high.

Ans: sqrt((12)^2+(8)^2+(9)^2)=17m

8. A polygon has 27 diagonals. The number of sides of the polygon is

Ans: n(n-3)/2 =27 so, 9 side

9. The perimeter of a triangle is 28 cm and the inradius of the triangle is 2.5 cm. What is the area of the triangle?

Ans: Area= radius *semi-perimeter =2.5*28/2 =35cm^2

10. Find the area of trapezium whose parallel sides are 20 cm and 18 cm long, and the distance between them is 15 cm.

Ans: (a+b)/2 * 15 = (20+18)/2 *15 = 285 sq.cm

11. The ratio of the length and the breadth of a rectangle is 4 : 3 and the area of the rectangle is 6912 sq cm. Find the ratio of the breadth and the area of the rectangle?

Ans: 4x*3x=6912 so,x=24

4*24:6912 = 1:96

Number Series:

1. Look at this series: 3, 4, 7, 8, 11, 12, ... What number should come next?

Ans: 15

2. Look at this series: 14, 28, 20, 40, 32, 64, ... What number should come next?

Ans:56

3. Look at this series: 2, 6, 18, 54, ... What number should come next?

Ans: 162

4.Look at this series: 8, 6, 9, 23, 87, ... What number should come next?

Ans: 429

5. Given a Series below. Find what number would come in place of the question mark(?). -10, -8, 6, 40, 102,

-10 + (2^2 – 2) = -8

-8 + (4^2 – 2) = 6

6 + (6^2 – 2) = 40

40 + (8^2 – 2) = 102

102 + (10^2 – 2) = 200

Ans:200

6.Given a series below. Find what number would come in place pf the question mark(?): 25,49,121,169,?

Ans: 289

7.Find the number which will come in the place of the question mark in the given series

4,18,?,100,180,294.448

Ans: 4^3-4^2=48

8.In each of the following number series given on particular number is wrong find out the wrong number in each series

2,3,10,172,885,5346

Ans: 40->39 (10+3*3=39)