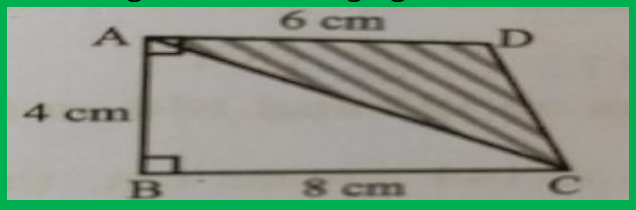
Cosmo School

Work Sheet – 03 (Mathematics) for class – Nine (08.10.2020), Chapter - Sixteen, Exercise - 16.2, Mensuration

Creative Multiplication Choice Questions

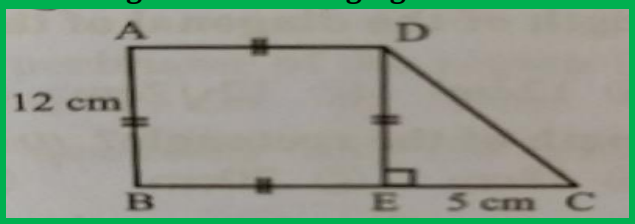
1. **Parallel two sides of a trapezium are 32 metre and 64 metre. Its area is 768 square metre. What is the perpendicular distance between two parallel sides? [D.B.- 20]**
   a) 64 metre b) 48 metre
   c) 16 metre d) 8 metre
2. **What is the angle of a vertex of a regular pentagon? [My.B.- 20, D.B.- 17, C.B.- 17]**
   a) 106° b) 108°
   c) 110° d) 120°
3. **The perimeter of a square is 16 metre then what is the length of its one diagonal? [My.B.- 20, Dj.B.- 20]**
   a) $2\sqrt{3}$ metre b) $3\sqrt{2}$ metre
   c) $3\sqrt{3}$ metre d) $4\sqrt{2}$ metre
4. **In any square, length of a side is x cm then what is area of the square on the basis of diagonal? [R.B.- 20]**
   a) $2x^2$ b) x^2
   c) $x\sqrt{3}$ d) $x\sqrt{2}$
5. **If the area of the whole surface of a cube is 96 m^2 then what is its diagonal of the surface? [R.B.- 20]**
   a) $16\sqrt{3}$ b) $16\sqrt{2}$
   c) $4\sqrt{3}$ d) $4\sqrt{2}$
6. **If the area of a rectangle is 35 square cm whose length is x cm and breadth is (x – 2) cm then what is the value of x? [R.B.- 20]**
   a) 7 b) 5
   c) – 5 d) – 7

Answer to the questions No. (7 – 8) according to the following figure:



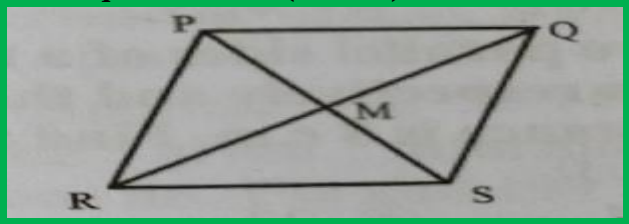
7. **What is the area of ΔABC in cm^2? [R.B.- 20]**
   a) 32 b) 24
   c) 16 d) 12
8. **What is the area of the shaded region in cm^2? [R.B.- 20]**
   a) 40 b) 28
   c) 24 d) 12
9. **The distance of the centre to the vertex of a regular hexagon is 6 metre. What is the area of hexagon in square metre? [S.B.- 20]**
   a) $108\sqrt{3}$ b) $54\sqrt{3}$
   c) $27\sqrt{3}$ d) $9\sqrt{3}$
10. **How many times is the area of a square in terms of the area of the square on its diagonal? [S.B.- 20, Ctg.B.- 19]**
    a) $\frac{1}{4}$ times b) $\frac{1}{2}$ times
    c) 2 times d) 4 times
11. **If the perimeter of a square is $\frac{a}{2}$ unit then which one is its area? [J.B.- 20]**
    a) $\frac{a^2}{2}$ sq. unit b) $\frac{a^2}{4}$ sq. unit
    c) $\frac{a^2}{8}$ sq. unit d) $\frac{a^2}{64}$ sq. unit
12. **The length of the diagonal of a rectangle is 15 metres and the width is 10 metres. What is the length of the rectangle? [B.B.- 20]**
    a) 25 metre b) $5\sqrt{5}$ metre
    c) 5 metre d) $\sqrt{5}$ metre

Answer to the questions No. (13 – 14) according to the following figure:



13. **What is the area of trapezium ABCD? [C.B.- 20]**
    a) 72 sq. cm b) 102 sq. cm
    c) 174 sq. cm d) 204 sq. cm
14. **What is the ratio between the perimeter of the square ABED and ΔCDE? [C.B.- 20]**
    a) 3 : 4 b) 5 : 7
    c) 5 : 8 d) 8 : 5

According to the given information answer to the questions No. (15 – 16):



In the figure, PQSR is parallelogram, ∠PMQ = 90^0, PQ = 5 cm and MQ = 4 cm.

15. What is the value of PS? [Ctg.B.- 20]

a) 4 cm b) 5 cm
c) 6 cm d) 8 cm

16. What is the area of PQSR? [Ctg.B.- 20]

a) 20 sq. cm b) 24 sq. cm
c) 25 sq. cm d) 48 sq. cm

17. What is the measurement of each angle of regular hexagon? [Dj.B.- 19]

a) 60° b) 108°
c) 120° d) 135°

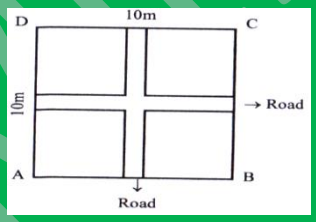
18. The lengths of the two diagonals of a rhombus are 12 cm and 15 cm respectively. What is the area of it? [Ctg.B.- 19]

a) 45 sq. cm b) 90 sq. cm
c) 180 sq. cm d) 360 sq. cm

19. The base and height of a parallelogram are 12 cm and 8 cm respectively. What is the area of parallelogram? [S.B.-19]

a) 192 sq. cm b) 96 sq. cm
c) 48 sq. cm d) 24 sq. cm

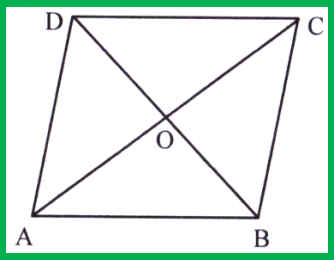
20.



If the width of the roads is 2 metre in this figure. What is the area of the two roads? [B.B.- 19]

a) 16 sq. m b) 32 sq. m
c) 36 sq. m d) 40 sq. m

According to the given information answer to the questions no. (21 – 22):



[AC = 24 cm and BD = 18 cm]

21. What is the area of ABCD rhombus? [B.B.- 19]

a) 84 sq. cm b) 108 sq. cm
c) 216 sq. cm d) 432 sq. cm

22. What is the perimeter of the rhombus ABCD? [B.B.- 19]

a) 84 cm b) 60 cm
c) 42 cm d) 15 cm

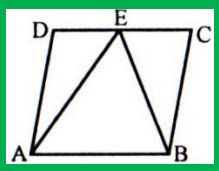
23. The lengths of two parallel sides of a trapezium are 9 cm and 7 cm. The height is 8 cm then what is the area of it in square cm? [R.B.- 17]

a) 24 b) 64
c) 96 d) 504

24. Which one of the following is a regular polygon? [Ctg.B.- 17]

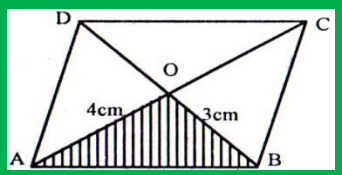
a) Triangle b) Square
c) Pentagon d) Hexagon

25.



The area of the parallelogram ABCD is 120 m^2. What is the area of ΔABE in m^2? [Ctg.B.- 17]

a) 40 b) 60
c) 90 d) 120



Answer to the questions no. (26 – 27) with help of above figure:

26. What is the area of ΔAOB in square cm in the rhombus ABCD? [B.B.- 17]

a) 3 b) 4
c) 6 d) 12

27. **What is the perimeter of the rhombus in metre?** **[B.B.- 17]**

a) 0.16 b) 0.2

c) 16 d) 20

Read the following statement and answer to the questions no. (28 – 29):
AC and BD are the two diagonals of ABCD square and O is their common point. Again OE ⊥ AB here OE = 5 cm.

28. **The area of ΔOAB is —** **[J.B.- 16]**

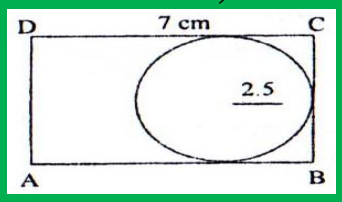
a) 10 b) 25

c) 33.33 d) 50

29. **The area of ABCD square will be —** **[J.B.- 16]**

a) 100 cm^2 b) 40 cm^2

c) 25 cm^2 d) 20 cm^2



Observe the figure and answer to questions no. (30 – 31):

30. **If the given rectangle's area is the area of a square then a side of the square will be.** **[J.B.- 16]**

a) 4.18 b) 4.39

c) 3.96 d) 5.91

31. **In the figure the area of the uncovered portion is.** **[J.B.- 16]**

a) 15.4 b) 17.5

c) 19.3 d) 35

32. **If the diagonals of rhombs are P_1 and P_2 then what is its area?** **[D.B.- 16]**

a) $(P_1 + P_2)^2$ b) $\frac{1}{2}P_1P_2$

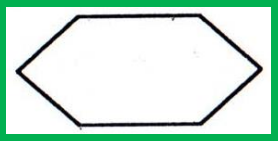
c) $\sqrt{P_1^2 + P_2^2}$ d) P_1P_2

33. **If the perimeter of a square is 16 metre then what is its diagonal?** **[D.B.- 16]**

a) $4\sqrt{2}$ b) $3\sqrt{3}$

c) $3\sqrt{2}$ d) $2\sqrt{3}$

34.



What is the total value of the angles of the polygon in the figure? **[D.B.- 16]**

a) 4 right angle b) 6 right angle

c) 8 right angle d) 10 right angle

35. **If the length and breadth of a rectangle are 4 unit and 3 unit respectively then what is the length (unit) of its one diagonal?** **[S.B.- 16]**

a) 1 b) 5

c) 7 d) 12

36. **What is the measurement of every angle of balanced polygonal surrounded by n side?** **[J.B.- 16]**

a) $\frac{(n-2)\times 180^\circ}{n}$ b) $\frac{(n+2)\times 180^\circ}{n}$

c) $\frac{(n-2)\times 90^\circ}{n}$ d) $\frac{(n+2)\times 90^\circ}{n}$

37. **If the sides of a square become three times then how many times will the area be in terms of the previous area?** **[R.B.- 16]**

a) 3 times b) 4 times

c) 6 times d) 9 times

38. **If the length of a diagonal of a square is 6 cm then what is the perimeter of the square in cm?** **[C.B.- 16]**

a) $3\sqrt{2}$ b) $6\sqrt{2}$

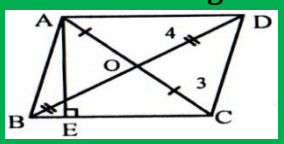
c) $8\sqrt{2}$ d) $12\sqrt{2}$

39. **If the length of one side of a square is a unit then what is the length of one diagonal of it?** **[S.B.- 16]**

a) 4a b) 2a

c) $\sqrt{3}$a d) $\sqrt{2}$a

Answer the questions No. (26 - 28) on the basis of the following information:



In the figure AB = BC = CD = AD.

40. **Which one of the following is the area of the ΔAOD?** **[R.B.- 16]**

a) 14 sq. unit b) 12 sq. unit

c) 7 sq. unit d) 6 sq. unit

41. Which one of the following is the perimeter of the quadrilateral ABCD? [R.B.- 16]

a) 12 unit b) 14 unit
c) 20 unit d) 28 unit

42. If AE ⊥ BC then what is the length of AE? [R.B.- 16]

a) 2.4 unit b) 4.8 unit
c) 9.6 unit d) 7 unit

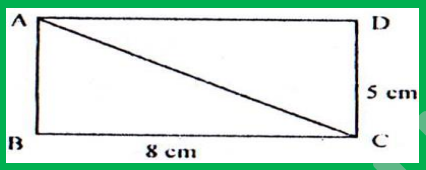
43. If the sides of a square increased by three times then what is the increased of its area? [Dj.B.- 15]

a) 3 times b) 4 times
c) 8 times d) 9 times

44. In the adjacent sides of a rectangle are 8 cm and 15 cm then what is the length of a diagonal of the rectangle in cm? [Ctg.B.- 15]

a) 23 b) 17
c) 12.68 d) 11.31

45.



ABCD is a rectangular then [B.B.- 15]

i. Its area is 40 square cm.
ii. Length of AC is 9.43 cm.
iii. Its perimeter is 24 cm.

Which one of the following is correct?

a) i and ii b) ii and iii
c) i and iii d) i, ii and iii

Answer to the questions no. (32 – 33) on the basis of the information:

The area of rectangle is 144 square cm the width of the rectangular 9 cm and the area of rectangular is equal to the area of 81 square cm.

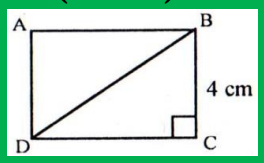
46. What is the perimeter of rectangular? [D.B.- 15]

a) 25 cm b) 50 cm
c) 81 cm d) 256 cm

47. What is the length of the diagonal of the square? [D.B.- 15]

a) 9 cm b) 12 cm
c) $12\sqrt{2}$ cm d) 25 cm

According to the figure answer the questions no. (34 – 35):



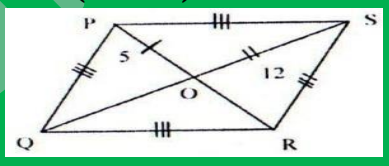
48. What is the diagonal length of square ABCD? [R.B.- 15]

a) $2\sqrt{3}$ b) $4\sqrt{2}$
c) $4\sqrt{3}$ d) $8\sqrt{2}$

49. The lengths of two parallel sides of a trapezium are 18 cm and 14 cm respectively and their perpendicular distance is 8 cm. Find the area of the trapezium. [R.B.- 15]

a) 128 b) 64
c) 32 d) 16

According to the figure answer the question no. (36 – 37):



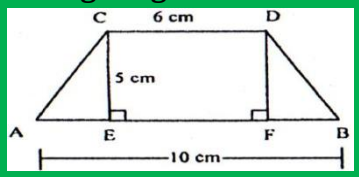
50. What is the area of ΔQOR? [Dj.B.- 15]

a) 17 square unit
b) 30 square unit
c) 60 square unit
d) 120 square unit

51. What is the perimeter of quadrilateral? [Dj.B.- 15]

a) 34 unit b) 52 unit
c) 60 unit d) 169 unit

Answer to the questions No. (52 – 53) from the figure given below:



52. What is the area of the region ABCD? [J.B.- 15]

a) 30 sq. cm b) 40 sq. cm
c) 50 sq. cm d) 60 sq. cm

53. What is the perimeter of the region CDEF? [J.B.- 15]

a) 10 cm b) 11 cm
c) 12 cm d) 22 cm