gradeup

RRB NTPC
Previous Years' Questions
Advanced Maths

Part I
Geometry & Mensuration

Prep Smart. Score Better. Go gradeup

www.gradeup.co

1. The difference between the length and breadth of a rectangle is 6 metre. If its perimeter is 64 metre, then its area is :
(A) 256 sq. metre
(B) 247 sq. metre
(C) 264 sq. metre
(D) 238 sq. metre
A. (C)
B. (A)
C. (D)
D. (B)
Ans. D
Sol.
Let length and breadth of a rectangle are l and b respectively
According to question, l-b =6 meter.....(1)
Given is ,perimeter = 64 meter
2l+b = 64
l+b = 32.....(.2)
From equation (1) & (2), we have
l=19 & b=13
Area of rectangle = lb
Area=19 x 13=247 sq.meter

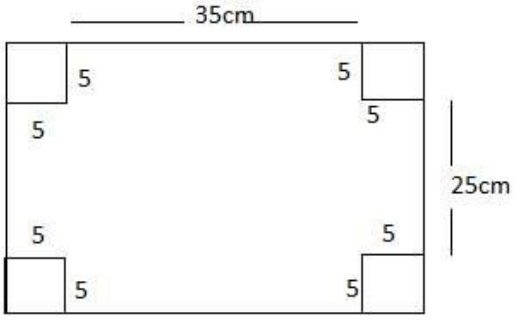
2. If the length (L cm) of rectangle and breadth (B cm) be increased by 25% each, find the difference between the new and original areas of the rectangle.
(A) $\frac{3LB}{2}$ sq. cm
(B) $\frac{24LB}{9}$ sq. cm
(C) $\frac{9LB}{16}$ sq. cm
(D) $\frac{16LB}{9}$ sq. cm
A. (B)
B. (A)
C. (C)
D. (D)
Ans. C
Sol.
Original area = L x B = LB cm^2
New length = L + L/4 = 5L/4 cm
New breadth = B + B/4 = 5B/4 cm
New area = (5L/4) x (5B/4) = (25/16)LB cm^2
Difference between new area and original area = (25/16)LB – LB = (9/16) LB cm^2

3. Perimeter of a triangle is 200 cm. If its two sides are equal and the third side is 20 cm greater than the equal sides, then what is the length of third side?
(A) 60 cm
(B) 50 cm
(C) 80 cm
(D) 70 cm
A. (D)
B. (A)
C. (C)
D. (B)
Ans. C
Sol.
Let the equal side of isosceles triangle be a and other side be b.
Given that b = a+20
Perimeter = a + a+ b
= 2a +b = 200
3a+ 20 = 200
a= 60
and b = a+20 = 60 +20 = 80

4. A closed rectangular wooden box of 1 cm in thickness is filled up with cement. Its outer dimensions are length 22 cm, Breadth 17 cm and height 12 cm. How much cement can be filled in the box.
(A) 1488 cm^2
(B) 3000 cm^2
(C) 4488 cm^2
(D) 2880 cm^2
A. (A)
B. (C)
C. (D)
D. (B)
Ans. D
Sol.
Inner length = 22- (1+1)= 20 cm
Inner breadth = 17- 2 = 15 cm
Net height = 12-2 = 10 cm
Volume of box = length x breadth x height
= 20 x 15 x 10 = 3000 cm^3

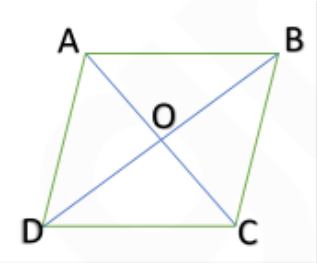
5. Four square of 5 cm length were cut from corners of a rectangular plate of dimention 45 cm × 35 cm. From the remaining plate an open box is made. Find the volume of the box.
(A) 1200 cm^3
(B) 872cm^3

(C) 1325 cm^3
(D) 4375 cm^3
A. (C)
B. (B)
C. (D)
D. (A)
Ans. C
Sol.



Length of the remaining box= 45-5×2 = 35
Breadth of the remaining box = 35 – 5×2 =25
Volume of the box = 35×25×5 = 4375 cm^3

6. The length of one of the diagonals of a rhombus is 8 cm and its area is 64 cm^2. What will be the side length of rhombus?
A. 4cm
B. $4\sqrt{3}\ cm$
C. $4\sqrt{2}\ cm$
D. $4\sqrt{5}\ cm$
Ans. D
Sol.



$A=1/2\times d_1\times d_2$
$64=1/2\times 8\times d_2$
$d_2=16$
AC=8 cm
BD=16 cm
OC=4 cm
OD=8 cm
CD=$\sqrt{(16+64)}=4\sqrt{5}$ Since diagonals intersect at right angles

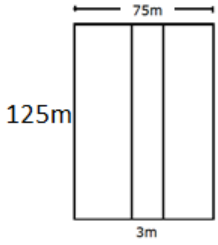
7. A square ground is to be covered by planting 100 saplings on each side. How many saplings are needed in all?
A. 400
B. 404
C. 396
D. 408
Ans. C
Sol. 100 saplings are needed to cover each side of square but 4 vertexes of square ground are common so, required plants = 4 ×100 – 4 = 396

8. What is the length of diagonal, if area of a rectangle is 168 cm^2 and breath is 7cm?
(A) 24 cm
(B) 15 cm
(C) 17 cm
(D) 25 cm
A. (B)
B. (C)
C. (D)
D. (A)
Ans. C
Sol.
Area = L x B
168 = L x 7
L = 24
diagonal =$\sqrt{[24^2 + 7^2]}$

9. If length of diagonal of a square is 13√2 unit. Find area of the square.
(A) 104 square unit
(B) 169 square unit
(C) 338 square unit
(D) 676 square unit
A. (B)
B. (D)
C. (A)
D. (C)
Ans. A
Sol. length of diagonal of a square = 13√2 unit
Side = diagonal/√2 = 13 unit
Area = 13^2 = 169 $unit^2$

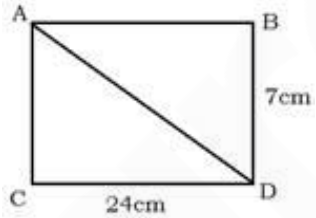
10. A rectangular playground ground of length 125 m and width 75 m, has a walking strip of width 3 m in the middle

of the ground, along the longer side. What is the area of the ground without the walking strip?
A. 9375 sq.m
B. 9000 sq.m
C. 9750 sq.m
D. 8625 sq.m
Ans. B



Sol.
Required area
$=75\times 125-(125\times 3)$
= 9375 – 375
=9000 sq.m

11. What is the length of diagonal, if area of a rectangle is 168 cm^2 and breadth is 7 cm?
A. 24 cm
B. 15 cm
C. 17 cm
D. 25 cm
Ans. D
Sol. area of a rectangle = 168 cm^2
= L x b = 168 cm^2
= L x 7 = 168 cm^2
L = 24 cm.



In right-angle ΔACD,
$AD^2 = CD^2 + AC^2$
$AD^2 = 7^2 + 24^2$
AD = 25cm

12. Study the following statements and choose right option.
I. There are at least three lines drawn from two points.
II. If sides of a triangle are parallel to sides of another angle respectively then both angles are neither equal nor complementary.
(A) I and II both are not true.
(B) I and II both are true.
(C) I is wrong and II is true
(D) I is true and II is wrong.
A. A
B. B
C. D
D. C
Ans. A
Sol. .
We can draw only one straight line from two points.
Therefore, the correct answer is option A.

13. If the ratio of angles of a triangle is 2 : 5 : 8 . Then find the larger angle.
(A) 30°
(B) 96°
(C) 84°
(D) 60°
A. A
B. D
C. B
D. C
Ans. C
Sol. .
Let the angle be 2x,5x and 8x respectively.
A.T.Q.

$$2x+5x+8x=180^\circ$$
$$15x=180^\circ$$
$$x=12^\circ$$

Required 5x = 60°

14. If the ratio of two complementary angle is 11 : 7 . Then find smaller angle.
(A) 35°
(B) 55°
(C) 45°
(D) 25°
A. D
B. C
C. B
D. A
Ans. D
Sol.
Let the angle be 11x and 7x respectively
A.T.Q

$$11x+7x=90^\circ$$

$18x = 90°$

$x = 5°$

Required $7x = 7 \times 5 = 35°$.

15. If the ratio of angles of a triangle is 1 : 4 : 7, then find the ratio of sum of largest angle and smallest angle to smallest angles.
(A) 8 : 1
(B) 2 : 3
(C) 7 : 1
(D) 3 : 5
A. (B)
B. (C)
C. (A)
D. (D)
Ans. C
Sol.
Let the angles of triangle are x, 4x and 7x.
Sum of angles = 180°
x + 4x + 7x = 180
12x = 180
x = 180/12
x = 15
4x = 4 × 15 = 60
7x = 7 × 15 = 105
Ratio = 15 + 105 : 15 = 120 : 15 = 8 : 1
Option C is correct.

16. If (4y + 55Â) and (3y + 69)Â are supplementary then find the value of y.
(A) 10
(B) 6
(C) 12
(D) 8
A. (C)
B. (D)
C. (A)
D. (B)
Ans. B
Sol.
Sum of supplementary = 180Â
4y + 55Â + 3y + 69Â = 180Â
7y + 124 Â = 180Â
7y = 180Â - 124Â
7y = 56
y = 56/7
y = 8
Option B is correct.

17. If the ratio of angles of a triangle is 1 : 4 : 7 then find the ratio of greatest angle to smallest angle.
(A) 7 : 2
(B) 2 : 3
(C) 7 : 1
(D) 3 : 5
A. (A)
B. (C)
C. (D)
D. (B)
Ans. B
Sol.

18. If $(7x + 5)^\circ$ and $(x + 5)^\circ$ are complementary angles, then find the value of x.
(A) 10°
(B) 20°
(C) 30°
(D) 40°
A. (D)
B. (C)
C. (A)
D. (B)
Ans. C
Sol. The sum of two complementary angles is 90°.
Thus, $(7x + 5)^\circ + (x + 5)^\circ = 90°$
⇒ 8x + 10° = 90°
⇒ 8x = 80°
⇒ x = 10°

19. If S is the mid point of a straight line PQ. R is a different point is such a way that PR = RQ, then
(A) $\angle PRS = 90°$
(B) $\angle QRS = 90°$
(C) $\angle PSR = 90°$
(D) $\angle POR = 90°$
A. (D)
B. (B)
C. (A)
D. (C)
Ans. D
Sol.

20. If the ratio of two complementary angle is 4:5, then find the largest angle?
(A) 40°

(B) 50°
(C) 60°
(D) 30°
A. (A)
B. (C)
C. (B)
D. (D)
Ans. C
Sol.
Let the angle be 4x and 5x respectively.
A.T.Q.

$$4x + 5x = 90$$

$$9x = 90$$

$$x = 10$$

Required $5x = 50°$

21. If the ratio of angle of a triangles is 2 : 5 : 8. Then find the lowest angle.
(A) 36Â
(B) 18Â
(C) 12Â
(D) 24Â
A. (C)
B. (B)
C. (D)
D. (A)
Ans. C
Sol.
Let the angle be 2x, 5x, and 8x respectively.

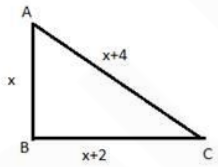
$$2x + 5x + 8x = 180$$

$$x = 12°$$

Required Angle = 2x = 24°

22. A complete angle is equal to –
(A) 90°
(B) 180°
(C) 270°
(D) 360°
A. (B)
B. (C)
C. (A)
D. (D)
Ans. D
Sol.
A angle whose measure is 360^0 is called a complete angle.

23.In a right angle triangle, longest side is 2 cm more long than middle side and middle side in 2 cm more than the smallest side of the triangle. So find the length of the longest side.
(A) 6 cm
(B) 9 cm
(C) 10 cm
(D) 8 cm
A. (A)
B. (D)
C. (C)
D. (B)
Ans. C
Sol.



Let the length of the smallest side AB = x cm
Length of the middle side BC = (x+2) cm
Length of the longest side AC = (x+4) cm
By pythagoras theorem,

$$AC^2 = AB^2 + BC^2$$

$$(x+4)^2 = (x+2)^2 + x^2$$

$$x^2 - 4x - 12 = 0$$

$$(x-6)(x+2) = 0$$

$$x = -2 \text{ and } 6$$

Length can not be negative
So, x= 6
Length of the longest side AC = (x+4)= 6+4 = 10 cm
24. If the circumference of a circle is rd, then what will be area of the circle?
(A) $rd^2 / 4$
(B) 2rd
(C) $rd^2/2$
(D) rd^2
A. (B)
B. (A)
C. (C)
D. (D)
Ans. B
Sol.

Given, The circumference of a circle=rd, then radius of the circle= $\frac{d}{2}$

Area of the circle

$= \pi \times (radius)^2 = \pi \times \left(\frac{d}{2}\right)^2 = \frac{\pi d^2}{4}$

25. The order of rotational symmetry of a rectangle is:
(A) 1
(B) 4
(C) 2
(D) 0
A. (C)
B. (B)
C. (A)
D. (D)
Ans. A
Sol.
* Rotational symmetry is the characteristic that makes an object look the same even after you've rotated it.
* The order of symmetry is the number of times an object or shape can be rotated and still look like it did before rotation.
* The order of symmetry of the rectangle is 2 since it can be rotated to two positions where it appears the same as the rectangle before.

26. The length of the diagonal in cm. of a rectangle of length 5 cm and width 3 cm is:
(A) $\sqrt{34}$
(B) $\pm\sqrt{34}$
(C) 4
(D) ±4
A. (B)
B. (A)
C. (C)
D. (D)
Ans. B
Sol.
Length of diagonal $= \sqrt{l^2 + b^2} = \sqrt{5^2 + 3^2} = \sqrt{34}$ cm
Since length cannot be negative option B cannot be the answer.

27. The number of sides of a regular polygon whose exterior angles are each 72Â is
(A) 7
(B) 6
(C) 5
(D) 8
A. (D)
B. (B)
C. (C)
D. (A)
Ans. C
Sol.
Exterior angle = 360/N = 72
N = 5

28. The number of sides of a regular polygon whose interior angles are 156° each is :
(A) 14
(B) 16
(C) 15
(D) 17
A. (D)
B. (A)
C. (B)
D. (C
Ans. D
Sol.
Sum of interior angles of a regular polygon with n sides =(n-2)x180°
Value of one interior angle= $\frac{(n-2)}{n} \times 180^o$=156°
180° x n - 360°=156° n
24n=360°
Number of sides $n = \frac{360^\circ}{24} = 15^o$

29. A square has diagonals of length 22 cm. then the side of the square in cm is :
(A) $11\sqrt{2}$
(B) $\pm 11\sqrt{2}$
(C) 11
(D) $22\sqrt{2}$
A. (D)
B. (A)
C. (C)
D. (B)
Ans. B

Sol.
Let the length of side of square =a cm
Length of diagonal=$\sqrt{2}a = 22\ cm$
Length of side of square $a = \frac{22}{\sqrt{2}} = 11\sqrt{2}$

30. The opposite angle in a cyclic quadrilateral adds up to ___ degree
(A) 270
(B) 90
(C) 180
(D) 360
A. (A)
B. (D)
C. (C)
D. (B)
Ans. C
Sol.
We know that in cyclic quadrilateral opposite angles are supplementary angle.
So, sum of opposite angles=180°

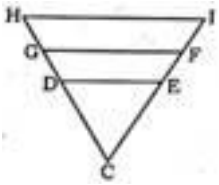
31. Find the odd statement out in relation to a triangle.
(A) The longest side is opposite to the greatest angle.
(B) The exterior angle of a triangle = the sum of interior opposite angles.
(C) The sum of any two sides is greater than the 3rd side
(D) The square of one side = the sum of the squares of other two sides
A. (D)
B. (C)
C. (A)
D. (B)
Ans. A
Sol.
In a triangle,
The longest side is opposite to the greatest angle.
The exterior angle of a triangle = the sum of interior opposite angles.
The sum of any two sides is greater than the 3rd side.
All of these are the basic properties of a triangle.
But in option D
The square of one side = the sum of the squares of other two sides
The above statement is only true for right angled triangle.
Hence the answer is option D

32. What is the sum of interior angles in degrees of a polygon of 7 sides?
(A) 180°
(B) 360°
(C) 540°
(D) 900°
A. (A)
B. (C)
C. (B)
D. (D)
Ans. D
Sol.

We know that polygon of n sides can be divided into (n-2) triangles.
Sum of angles of a triangle=180°
So, sum of the angles of (n-2) triangles,
=(n-2)×180°
=(7-2)×180°
=5×180°
=900°
33. The ratio of the angles of a triangle is 2 : 4 : 3, what kind of a triangle is it?
(A) A right angled triangle
(B) An acute angled triangle
(C) An obtuse angled triangle
(D) An equilateral triangle
A. (C)
B. (D)
C. (B)
D. (A)
Ans. C
Sol.
We are given that the ratio of angles of triangle is 2:4:3
Let the angles are 2x, 4x, 3x
Sum of interior angle of triangle is 180 degree
So 2x+4x+3x=180
9x=180
x=20 degree
So angles are 40^0, 80^0, 60^0
Because all angles are less than 90^0, so it will be a acute angled triangle.

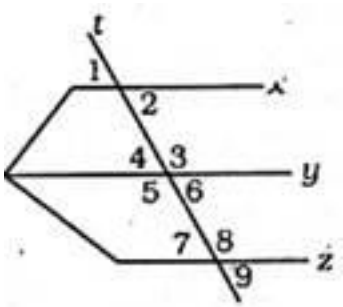
34. If $\angle Y = 75^\circ$, then what will be reflex angle y of it?
(A) 285°
(B) 115°
(C) 15°
(D) 205°
A. (B)
B. (A)
C. (D)
D. (C)
Ans. B
Sol.
The reflex angle is the larger angle. It is more than 180° but less than 360° If you choose the smaller angle you might have an Acute Angle, or an Obtuse Angle instead: The larger angle is a Reflex Angle, but the smaller angle is an Acute Angle.
So, the reflex angle of y = 360-75 = 285 degree

35.



HI, GF and DE are parallel lines. If DG= 6, GH = 4 and FI = 8 the EF = ?
(A) 8
(B) 9
(C) 12
(D) 16
A. (B)
B. (D)
C. (A)
D. (C)
Ans. D
Sol.
In DEIH, since the line GF DE and HI are parallel, GF will cut the line DH and EI in Proportion,
DG:GH = EF:FI
6/4 = EF/8
EF = 12

36.

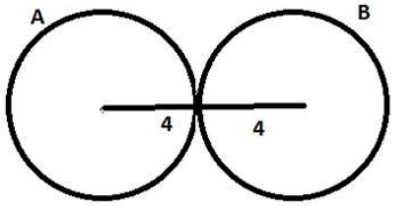


x, y and z are parallel lines and t is a transversal intersecting all of them. Which of the following lists has angles that are equal in measure?
(A) 2, 3, 5
(B) 2, 6, 8
(C) 1, 4, 9
(D) 4, 5, 7
A. (B)
B. (C)
C. (D)
D. (A)
Ans. B
Sol.
1 = 4 = 7(corresponding angles)= 9 = 2 = 6(vertically opposite angles to 7,1,4 respectively)
Similary,
8 and 3 are corresponding angles and 5 is vertically opposite angle to 3. Hence angle 8 = 3 = 5
Hence in the given option we can see that option C is correct.

37.If perimeter of a rectangle is 34 cm, and its diagonal is 13cms, what is its area?
(A) 987 sq. cm.
(B) 240 sq. cm.
(C) 120 sq. cm.
(D) 60 sq. cm.
A. (A)
B. (C)
C. (B
D. (D)
Ans. D
Sol.
Let the sides of a rectangle be l and b
$l^2 + b^2 = (12)^2 = 169$
2(l+b)= 34
l+b = 17
Squaring both the sides
$l^2 + b^2 + 2lb = 289$
169 +2lb = 289

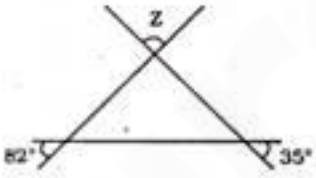
lb = 120/2 = 60
therefore area of rectangle = lb = 60cm^2

38. The radius of both circle A and circle B is 4 unit. If point P, lies in circle A and point Q lies on circle B, and both circles touch each other exactly at one point. Then what will be the maximum length of PQ?
(A) 0
(B) 4
(C) 8
(D) 16
A. (C)
B. (A)
C. (B)
D. (D)
Ans. D
Sol.



From the above figure we can clearly see that the maximum length of the PQ will be the sum of the diameter of the touching circles.
8+8 = 16cm

39. What is the value of Z?



(A) 35°
(B) 36°
(C) 63°
(D) 98°
A. (D)
B. (C)
C. (A)
D. (B)
Ans. B
Sol.
Since all 82°, 35° , and z are vertically opposite angles of the triangle, their sum will be 180°
Z = 180 – 82 – 35 = 63°

40. If side of equilateral triangle is 4 unit, then find the area of equilateral triangle
(A) $16\sqrt{3}$ square unit
(B) $4\sqrt{3}$ square unit
(C) $2\sqrt{3}$ square unit
(D) $\sqrt{3}$ square unit
A. (B)
B. (C)
C. (D)
D. (A)
Ans. A
Sol.
Area of equilateral triangle = $\frac{\sqrt{3}a^2}{4}$
$= \frac{\sqrt{3}(4)^2}{4}$
$= 4\sqrt{3}$

41. The area of a parallelogram ABCD is 25 cm^2. Then find the area of triangle BCD.
(A) 25 cm
(B) 25 cm^2
(C) 12.5 cm
(D) 12.5 cm^2
A. (D)
B. (A)
C. (C)
D. (B)
Ans. A
Sol. As BD is the diagonal of the parallelogram it divides it into 2 equal triagles
Hence, Area of ABD = Area of BCD = 1/2 * Area of the parallelogram.
=12.5 cm^2

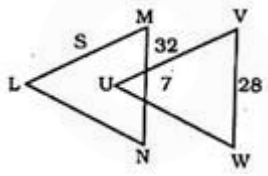
42. The largest chord of circle is 10cm and the smallest chord of the circle is 4cm. Find the radius of the circle.
(A) 20 cm
(B) 5 cm
(C) 8 cm (D) 2 cm
A. B)
B. (C)
C. (D)
D. (A)

Ans. A
Sol. Largest chord of a circle is the diameter of the circle
Diametre = 10cm
therefore, radius = 5cm

43. Find the area of a circle whose circumference is 22cm.
(A) 22 cm^2
(B) 11 cm^2
(C) 44 cm^2
(D) 38.5 cm^2
A. (B)
B. (C)
C. (A)
D. (D)
Ans. D
Sol. 2πr = 22
r= 7/2
Area = πr^2
= 38.5

44. A polygon had 9 sides. What is its interior angle?
(A) 140°
(B) 100°
(C) 120°
(D) 40°
A. (B)
B. (A)
C. (C)
D. (D)
Ans. B
Sol.
.Interior angle of a polygon = (n-2)x180/n
7x180/9 = 140

45. If LMN and UVW are similar triangles, the value of side S is



(A) 4
(B) 6
(C) 8
(D) 9
A. (A)
B. (D)
C. (B)
D. (C)

Ans. D
Sol. LMN ~ UVW
MN/VW = LM/ UV
7/28 = s/32
s = 8.

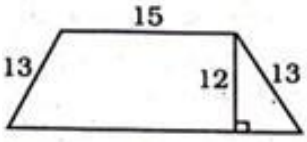
46. A polygon having seven sides is called
(A) Nonagon
(B) Hexagon
(C) Heptagon
(D) Octagon
A. (A)
B. (C)
C. (D)
D. (B)
Ans. B
Sol.
Polygon having 9 sides called → nonagon
Polygon having 6 sides called →Hexagon
Polygon having 7 sides called → Heptagon
Polygon having 8 sides called →Octagon
Hence option B is correct.

47. What is the measure of each of the two equal angles of the right isosceles triangle?
(A) 90°
(B) 30°
(C) 45°
(D) 60°
A. (D)
B. (C)
C. (A)
D. (B)
Ans. B
Sol.
In Right angle isoscelos triangle
The angles are = $90°, x° and\ x°$
We know that $90° + x° + x° = 180°$
X=45
So, option B is corect.

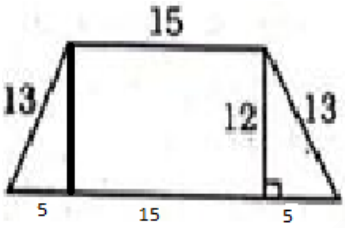
48. If the area of a circle is 9π sq. cm then its circumference is
(A) 9 cm
(B) 6π cm
(C) 3π cm
(D) 6 cm
A. (A)
B. (B)
C. (D)

D. (C)
Ans. B
Sol.
$\pi r^2 = 9\pi$ sq. cm
r=3
Circumference = $2\pi r = 6\pi$

49.



What is the area of this trapezoidal garden? (All measurements are in cm)
(A) 60 sq. cm
(B) 180sq. cm
(C) 210sq. cm
(D) 240sq. cm
A. (B)
B. (D)
C. (C)
D. (A)
Ans. B
Sol.



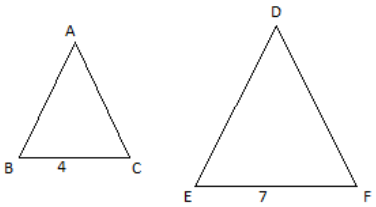
As shown in the figure the dimensions would be as given
Area = 1/2 x (Sum of parallel sides) x height = 1/2 (40) 12 = 240

50. If the interior angle of a polygon is 108°, then it is a
(A) Octagon
(B) Hexagon
(C) Pentagon
(D) Tetragon
A. (C)
B. (D)
C. (B)
D. (A)
Ans. A
Sol.
Each exterior angle = 180-108 = 72
n = 360/72 = 5 (Since sum of exterior angles = 360 degrees)

51. If area of a equilateral triangle is $24\sqrt{3}$ then find out the perimeter of triangle?
(A) $16\sqrt{6}$
(B) 96
(C) $4\sqrt{6}$
(D) $12\sqrt{6}$
A. (A)
B. (D)
C. (B)
D. (C)
Ans. B
Sol. Area of equilateral triangle = $(\sqrt{3}/4)a^2 = 24\sqrt{3}$
a = $\sqrt{96} = 4\sqrt{6}$
Perimeter = $3a = 12\sqrt{6}$

52._____ is the longest chord of a circle.
(A) Circumference
(B) Diameter
(C) Radius
(D) Sector
A. (D)
B. (B)
C. (A)
D. (C)
Ans. B
Sol.
Diameter is the largest chord of a circle.

53. If ΔABC and ΔDEF are similar triangles and BC = 4 cm, EF = 7 cm, area of ΔABC is 144 cm^2 then find the are of ΔDEF
(A) 252 cm^2
(B) 504 cm^2
(C) 441 cm^2
(D) 324 cm^2
A. (B)
B. (D)
C. (C)
D. (A)
Ans. C
Sol.



In Similar triangle,

$$\frac{ar(\Delta ABC)}{ar(\Delta DEF)} = \left(\frac{BC}{EF}\right)^2$$

$$\frac{144}{ar(\Delta DEF)} = \left(\frac{4}{7}\right)^2$$

Ar(ΔDEF) = 441cm^2

54. Area of a right angled triangle is 30 cm^2. If height 7 m more then base then find the length

(A) 5 m
(B) 12 m
(C) 7 m
(D) 9 m

A. (B)
B. (C)
C. (D)
D. (A)

Ans. D

Sol.

Let the length of the base be x
Height of the triangle = x+7
Area of triangle = ½ × x × (x + 7) = 30
$x^2 + 7x - 60 = 0$
$x^2 + 12x - 5x - 60 = 0$
$(x+12)(x-5) = 0$
X= 5 = length of base

gradeup

Gradeup Green Card

Features:

- 350+ Full-Length Mocks
- 30+SSC & Railways Exams Covered
- Tests Available in English & Hindi
- Performance Analysis & All India Rank
- Previous Year Question Papers in Mock Format
- Available on Mobile & Desktop

GET IT ON Google Play

www.gradeup.co