FRESHERS NOW

1. **17 36 52 63 67 ?**

A. 62
B. 63
C. 71
D. 72

Answer – A. 62
Explanation:
17 + (5*4 -1) = 36
36 + (5*4 – 4) = 52
52 + (5*4 – 9) = 63
63 + (5*4 – 16) = 67
67 + (5*4 – 25) = 62

2. **10 28 64 115 175 ?**

A. 252
B. 232
C. 272
D. 300

Answer – B. 232
Explanation:
10 + (21 – 3) = 28
28 + (42 – 6) = 64
64 + (63 – 12) = 115
115 + (84 – 24) = 175
175 + (105 – 48) = 232

3. **2, 1, (1/2), (1/4),?**

A. (1/3)
B. (1/8)
C. (2/8)
D. (1/16)

Answer - B. (1/8)
Explanation:
This is a simple division series; each number is one-half of the previous number.
In other terms to say, the number is divided by 2 successively to get the next result.
4/2 = 2

2/2 = 1
1/2 = 1/2
(1/2)/2 = 1/4
(1/4)/2 = 1/8

4. 50 53 59 73 105 ?

A. 165
B. 175
C. 185
D. 195

Answer – B. 175
Explanation:
50 + (5 -2) = 53
53 + (10 – 4) = 59
59 + (20 – 6) = 73
73 + (40 – 8) = 105
105 + (80 -10) = 175

5. A smaller triangle is having three sides. Another big triangle is having sides exactly double the sides of the smaller triangle. Then what is the ratio of Area of Smaller triangle to Area of the Bigger triangle?

A. 1: 4
B. 4: 1
C. 1: 2
D. 2: 1

Answer – A. 1: 4
Explanation:
Smaller triangle sides = a, b, c
Area= √s(s-a) (s-b) (s-c)
s=a+b+c/2
= √(a+b+c)(b+c-a)(a+c- b)(a+b-c)/4
Bigger triangle =2a, 2b, 2c
Area = √(a+b+c)(b+c-a)(a+c- b)(a+b-c)
Therefore, Ratio = 1:4

6. A rectangular garden is 30 meter long and 20 meter broad. It has 6 meter wide pavements all around it both on its inside and outside. Find the total area of pavements?

A. 800
B. 1000
C. 1200
D. 1600

Answer – C. 1200
Explanation:
Required area = 42*32 – 18*8 = 1200

7. **A rectangle whose sides are in the ratio 6:5 is formed by bending a circular wire of radius 21cm. Find the difference between the length and breadth of the rectangle?**

A. 12 cm
B. 10 cm
C. 8 cm
D. 6 cm

Answer – D. 6 cm
Explanation:
circumference of the wire = 2*(22/7)*21 = 22*6
perimeter of rectangle = 2*11x = 22*6, so x= 6
difference = 36 -30 = 6cm

8. **If the length of the rectangle is increased by 20%, by what percent should the width be reduced to maintain the same area?**

A. 13.37
B. 16.67
C. 21.33
D. 33.33

Answer – B. 16.67
Explanation:
Initially, let us assume length = 100 and breadth = 100
now new length = 120 and let breadth = b
so, 100*100 = 120*b
b = 250/3, so % decrease = 100 – 250/3 = 50/3 = 16.67%

9. **An order was placed for the supply of a carpet whose breadth was 6 m and length was 1.44 times the breadth. What is the cost of a carpet whose length and breadth are 40% more and 25% more respectively than the first carpet? Given that the ratio of carpet is Rs. 45 per sqm?**

A. Rs. 3642.40
B. Rs. 3868.80
C. Rs. 4216.20
D. Rs. 4082.40

Answer - D. Rs. 4082.40
Explanation:
Length of the first carpet = (1.44)(6) = 8.64 cm
Area of the second carpet = 8.64(1 + 40/100) 6 (1 + 25/100)
= 51.84(1.4)(5/4) sq m = (12.96)(7) sq m
Cost of the second carpet = (45)(12.96 * 7) = 315 (13 - 0.04) = 4095 - 12.6 = Rs. 4082.40

10. **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?**

A. 1 : 96
B. 1 : 48
C. 1 : 84
D. 1 : 68

Answer - A. 1 : 96
Explanation:
Let the length and the breadth of the rectangle be 4x cm and 3x respectively.
(4x)(3x) = 6912
$12x^2$ = 6912
x^2 = 576 = 4 * 144 = 2^2 * 12^2 (x > 0)
=> x = 2 * 12 = 24
Ratio of the breadth and the areas = 3x : $12x^2$ = 1 : 4x = 1: 96.

11. **The area of a square is equal to five times the area of a rectangle of dimensions l*b is 125 cm * 64 cm. What is the perimeter of the square?**

A. 600 cm
B. 800 cm
C. 400 cm
D. 1000 cm

Answer - B. 800 cm
Explanation:
Area of the square = s * s = 5(125 * 64)
=> s = 25 * 8 = 200 cm
Perimeter of the square = 4 * 200 = 800 cm.

12. In the beginning, Ram works at a rate such that he can finish a piece of work in 24 hrs, but he only works at this rate for 16 hrs. After that, he works at a rate such that he can do the whole work in 18 hrs. If Ram is to finish this work at a stretch, how many hours will he take to finish this work?

A. 12 hrs
B. 18 hrs
C. 15 hrs
D. 22 hrs

Answer - D. 22 hrs
Explanation:
Ram's 16 hr work = 16/24 = 2/3. Remaining work = 1 – 2/3 = 1/3.
Using work and time formula: This will be completed in 1/3 × 18 i.e. 6 hrs.
So, total time taken to complete work = 16 + 6= 22 hrs.

13. A and B undertake to do a piece of work for Rs. 450. A can do it in 20 days and B can do it in 40 days. With the help of C, they finish it in 8 days. How much should C be paid for his contribution?

A. Rs. 60
B. Rs. 40
C. Rs. 120
D. Rs. 180

Answer - D. Rs. 180
Explanation:
A & B would have done 8/20 & 8/40 of the work respectively in 8 days. Together they have done 3/5th of the work. This implies that C has done 2/5th of the work. Thus, C should be paid 2/5th of the amount i.e. 450 × 2/5 = Rs. 180.

14. X can do a piece of work in 12 days. Y can do this work in 16 days. X started work alone. After how many days should Y join him, so that the work is finished in 9 days?

A. 2 days
B. 3 days
C. 4 days
D. 5 days

Answer - D. 5 days
Explanation:
X's work in 9 days = 9/12 = 3/4. Remaining work = 1/4.

This work was done by Y in 1/4 × 16 = 4 days.
Therefore, Y would have joined A after 9 – 4 = 5 days.

15. **What number has a 5:1 ratio to the number 10?**

A. 42
B. 50
C. 55
D. 62

Answer - B. 50
Explanation:
Let us assume the required number is 'x'
Then, according to the given data
5:1 = x: 10
x = 50

16. **A 70 cm long wire is to be cut into two pieces so that one piece will be 2/5th of the other, how many centimeters will the shorter piece be?**

A. 10 cm
B. 20 cm
C. 25 cm
D. 30 cm

Answer - B. 20 cm
Explanation:
According to the given information
1: 2/5 = 5: 2
2/7 * 70 = 20