Cisco Aptitude Questions and Answers with Explanation

1. In a College, there are 1800 students. Last day except for 4% of the boys all the students were present in the college. Today except for 5% of the girls all the students are present in the college, but in both the day's number of students present in the college, were the same. The number of girls in the college is?

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

Answer - C. 800
Explanation:
From Options;
let Number of girls = 800
Number of boys = 1000
96% of 1000 + 800 = 95% of 800 + 1000[satisfies the condition]
Therefore, The number of girls in college is 800

2. 80% of a small number is 4 less than 40% of a larger number. The larger number is 125 greater than the smaller one. The sum of these two numbers is

A. 355
B. 365
C. 325
D. 345

Answer - A. 355
Explanation:
Let us assume a Smaller number = x
Larger number = y
0.8x + 4 = 0.4y
4y – 8x = 40
y – x = 125
x = 115; y = 240
x + y = 355

3. In a private company, 60% of the employees are men and 48% of the employees are Engineer and 66.6% of Engineers are men. The percentage of women who are not engineers is?

A. 50%

B. 55%
C. 65%
D. 60%

Answer - D. 60%
Explanation:
Men = 600x
Women = 400x
Total engineers = 480x
Male engineers = 480x * 0.66 = 320x
Women who are Engineers = 160x
Women who are not Engineers = 400x – 160x = 240x
Required percentage = 240/400 * 100 = 60%

4. Initially, a shopkeeper had "x" pens. A customer bought 10% of pens from "x" then another customer bought 20% of the remaining pens after that one more customer purchased 25% of the remaining pens. Finally, a shopkeeper is left with 270 pens in his shop. How many pens were there initially in his shop?

A. 800
B. 400
C. 600
D. 500

Answer - D. 500
Explanation:
x*0.9*0.8*0.75 =270
x = 270 * 10000 / 9 * 8 * 75
x = 500

5. When 40% percent of a number is added to another number the second number increases to its 20%. What is the ratio between the first and second number?

A. 2:1
B. 1:2
C. 2:3
D. 3:4

Answer – B. 1:2
Explanation:
(40/100)*a + b = (120/100)*b

a: b = 1: 2

6. A vessel contains milk and water in the ratio of 4:3. If 14 liters of the mixture is drawn and filled with water, the ratio changes to 3:4. How much milk was there in the vessel initially?

A. 40
B. 48
C. 24
D. 32

Answer – D. 32
Explanation:
milk = 4x and water = 3x
milk = 4x – 14*4/7 and water = 3x – 14*3/7 + 14
4x – 8: 3x + 8 = 3:4
X = 8, so milk = 8*4 = 32 litres

7. The sum of three numbers is 210. If the ratio between the first and second number be 2:3 and that between the second and third be 4:5, then the difference between the first and third number?

A. 21
B. 35
C. 42
D. 56

Answer – C. 42
Explanation:
a: b = 2:3 and b:c = 4:5
a:b:c = 8:12:15
Difference between first and third number = (7/35)*210 = 42

8. The income of Nikhil and Hemanth are in the ratio of 4:5 and their expenditure is in the ratio of 2:3. If each of them saves 2000, then find their income.

A. 4000, 6000
B. 4000, 5000
C. 5000, 4000
D. 5000, 6000

Answer – B. 4000, 5000

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Explanation:
4x – 2y = 2000 and 5x – 3y = 2000.
X = 1000, so income = 4000 and 5000

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

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

Answer – D. 16.67
Explanation:
let 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%

10. A cone whose height is half of its radius is melted to form a hemisphere. Find the ratio of the radius of the hemisphere to that of the cone.

A. 4:1
B. 1:4
C. 1:2
D. 1:3

Answer – B. 1:4
Explanation:
volume will remains constant.
So, V = 1/3*22/7*r^2*r/2 (volume of cone) and V = 2/3*22/7*R^3 (volume of hemisphere)
So, R/r = 1:4

11. 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. 6 cm
B. 8 cm
C. 10 cm
D. 12 cm

Answer – A. 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 = 6 cm

12. The radius of the wheel of a car is 70 cm. How many revolutions per minute the wheel will make in order to keep a speed of 66 km/hr?

A. 234
B. 272
C. 225
D. 250

Answer - D. 250
Explanation:
Distance to be covered in 1 min = 66*(1000/60) = 1100 m
70 cm = 0.70 m
Circumference of wheel = 2*(22/7)*0.70 = 4.4 m
Number of revolutions = (1100/4.4) = 250

13. 12 42 156 606 2400 ?

A. 9186
B. 9470
C. 9570
D. 9486

Answer – C. 9570
Explanation:
(12 * 4) – 6 = 48 – 6 = 42
(42 * 4) – 12 = 168 – 12 = 156
(156 * 4) – 18 = 624 – 18 = 606
(606 * 4) – 24 = 2424 – 24 = 2400
(2400 * 4) – 54 = 9600 – 30 = 9570

14. 14 26 62 122 206 ?

A. 314
B. 313
C. 310

D. 312

Answer – A. 314
Explanation:
14 + (1 * 12) = 14 + 12 = 26
26 + (3 * 12) = 26 + 36 = 62
62 + (5 * 12) = 62 + 60 = 122
122 + (7 * 12) = 122 + 84 = 206
206 + (9 * 12) = 206 + 108 = 314

15. 18 9 11 ? 109 544

A. 24
B. 14
C. 34
D. 28

Answer – D. 28
Explanation:
18*1 – 9 = 9
9*2 – 7 = 11
11*3 – 5 = 28

16. 6 8 16 42 122 ?

A. 366
B. 362
C. 364
D. 361

Answer – C. 364
Explanation:
6 + 2 = 8
8 + 8(= 3 * 2 + 2) = 16
16 + 26(= 3 * 8 + 2) = 42
42 + 80(= 3 * 26 + 2) = 122
122 + 242(= 3 * 80 + 2) = 364

17. 6 12 72 ? 10080

A. 720
B. 816
C. 879
D. 980

Answer – A. 720
Explanation:
6 * (1 + 1) = 12
12 * (3 + 3) = 72
72 * (5 + 5) = 720
720 * (7 + 7) = 10080

18. Varun and Madhav can together finish a work in 30 days. They worked together for 20 days and then Madhav left. After another 20 days, Varun finished the remaining work. In how many days Varun alone can finish the work?

A. 60
B. 35
C. 50
D. 45

Answer – A. 60
Explanation:
Varun + Madhav 20 days work = 1/30 *20 = 2/3
Remaining work = 1/3
1/3 work in 20 days so whole work in 60 days.

19. An alloy contains Brass, Iron, and Zinc in the ratio 2:3:1 and another contains Iron, zinc, and lead in the ratio 5:4:3. If equal weights of both alloys are melted together to form a third alloy, then what will be the weight of lead per kg in new alloy?

A. 1/8
B. 1/9
C. 1/4
D. 1/7

Answer – A. 1/8
Explanation:
In the first alloy,
2: 3: 1 = 6 * 2
5: 4: 3 = 12

Multiply 2 to make it equal,
4: 6: 2
5: 4: 3
Adding all,
4: 11: 6: 3=24
3/24=1/8

20. 144 liters of the mixture contains milk and water in the ratio 5: 7. How much milk needs to be added to this mixture so that the new ratio is 23: 21 respectively?

A. 36 liters
B. 40 liters
C. 28 liters
D. 32 liters

Answer – D. 32 liters
Explanation:
144 == 5: 7
60: 84
Now == 21 = 84
23 = 92
92-60 = 32