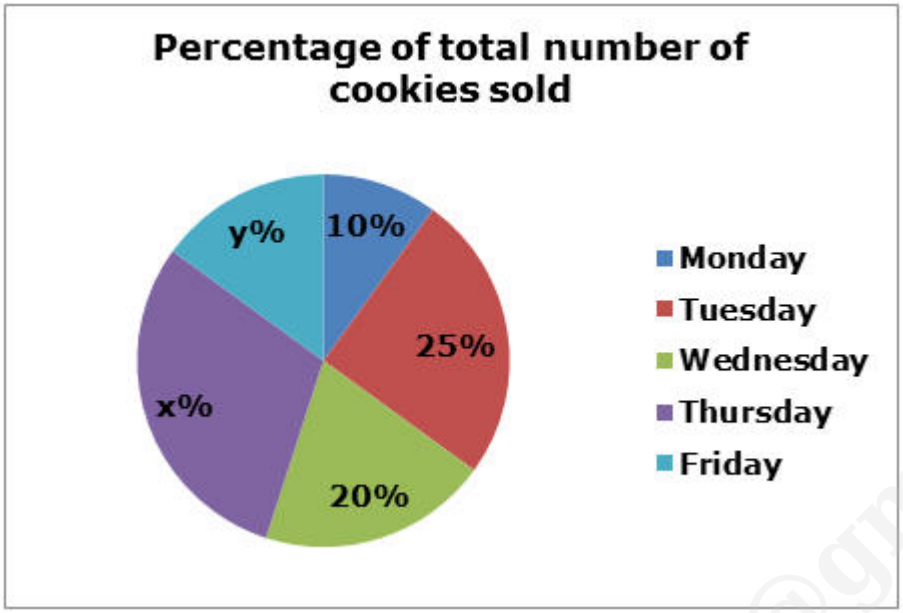
1. Questions

Study the following information carefully and answer the following questions given below.

The given pie chart shows that the percentage of the total number of cookies sold on five different days namely Monday, Tuesday, Wednesday, Thursday and Friday respectively.



Note:

i). The difference between the total number of cookies sold on Tuesday and Wednesday is 300

ii). The total number of cookies sold on Thursday is 300 more than that on Tuesday.

The ratio of the total number of cookies sold on Friday to Saturday is x:y. The total number of cookies sold on Saturday is what percentage of the total number of cookies sold on Tuesday.

a. 35%

b. 20%

c. 30%

d. 45%

e. 28%

2. Questions

If the total number of cookies sold on Wednesday is increased by 20% and the number of cookies sold on Thursday is 1/5th more, then find the total number of cookies sold on Wednesday, Thursday, and Friday.

a. 4000

b. 4200

c. 4500

d. 2800

e. 3600

3. Questions

On Monday, 20% of the cookies sold were butter cookies, 25% and 30% of the cookies sold were chocolate and almond cookies respectively, and the rest were nuts cookies. Find the difference between the number of nuts and almond cookies sold on Monday and the total number of cookies sold on Friday.

a. 600

b. 570

c. 540

d. 510

e. 480

4. Questions

The number of cookies sold on Saturday is the difference between the total number of cookies sold on Tuesday and Friday. If the ratio of the number of sold to unsold cookies on Saturday is 12:19, then find the number of unsold cookies on Saturday.

a. 836

b. 817

c. 950

d. 855

e. 988

5. Questions

On Wednesday, there are two types of cookies are sold, namely A and B, and the ratio of type A to type B cookies sold is 7:5. Find the number of type B cookies sold.

a. 600

b. 700

c. 500

d. 480

e. 300

6. Questions

Study the following information carefully and answer the following questions given below.

There are two hospitals in a town, namely A and B, and three different types of workers, namely x, y and z. The number of workers in type z in Hospital A is 50% more than that in Hospital B. The number of workers in type x in Hospital A was 25% less than the number of workers in type y in Hospital A. The ratio of the number of workers in type x to the number of workers in type y in Hospital B is 4:3, respectively. The ratio of the number of workers in type z to the number of workers in type y in Hospital A is 9:8. The total number of workers in both hospitals together was 500. The total number of workers in type x in both hospitals together is 180.

Find the total number of workers in type x in both hospitals.

a. 120

b. 180

c. 90

d. 150

e. 80

7. Questions

The number of workers in type x in Hospital C is 20% more than that of B, the number of workers in type y in Hospital C is 10 more than that of A, and the total number of workers in Hospital C is 300. Find the number of workers in type z in Hospital C.

a. 66

b. 77

c. 90

d. 56

e. 45

8. Questions

Find the ratio between the number of workers in type x in Hospital A to the number of workers in type z in Hospital B.

a. 1:2

b. 7:1

c. 3:1

d. 1:1

e. 9:7

9. Questions

Find the difference between the total number of workers in hospitals B and A.

a. 30

b. 40

c. 50

d. 10

e. 20

10. Questions

If the number of workers in type x in Hospital A is doubled, then the number of workers in type y and z in Hospital A will decrease by 10% and 20% respectively. Find the total number of workers in Hospital A.

a. 256

b. 254

c. 364

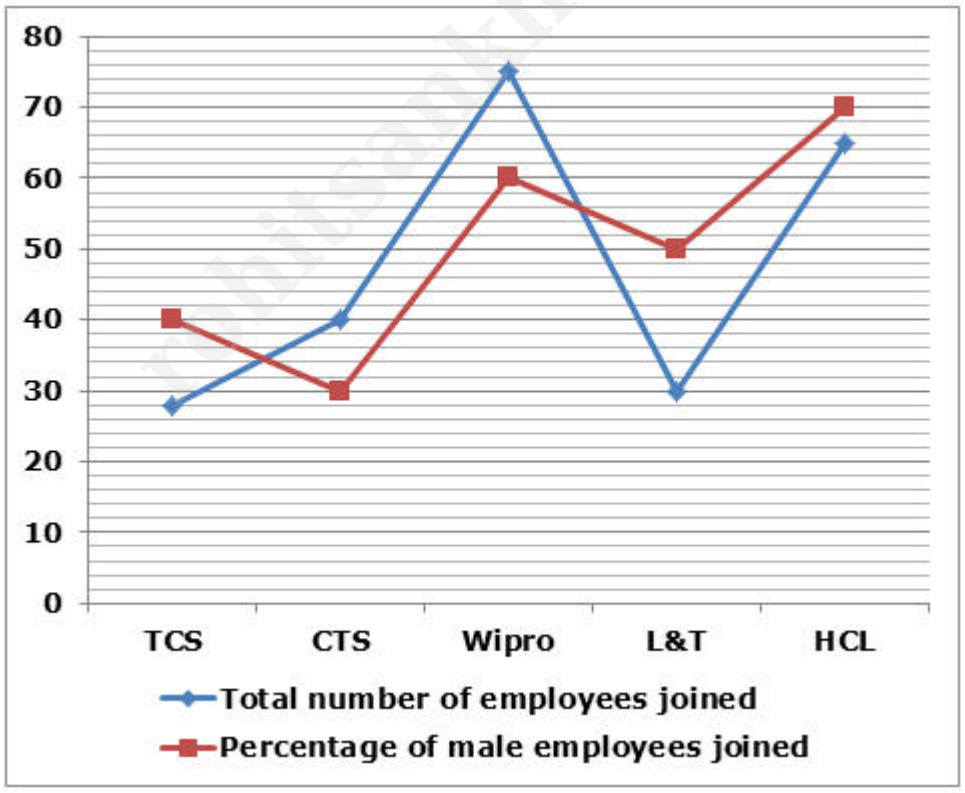
d. 264

e. 280

11. Questions

Study the following information carefully and answer the following questions given below.

The given line graph shows that the total number of employees joined (in tens) and the percentage of the number of male employees joined in five different companies namely, TCS, CTS, Wipro, L&T and HCL respectively.



In Wipro, there are experienced and fresher employees; the ratio of the number of experienced

males to females is 5:2.5, and the ratio of the number of fresher males to females is 5:4. Find the number of female fresher employees.

a. 250

b. 100

c. 200

d. 180

e. 140

12. Questions

In Wipro, 40% of the male employees are in the marketing department, and the rest are in the finance department. The number of females who joined the finance department is 55 less than that of males. Find the number of females who joined the marketing department.

a. 70

b. 85

c. 90

d. 55

e. 110

13. Questions

The total number of employees who joined AG Tech is 50 more than that of CTS. The ratio of the number of male employees who joined AG Tech to L&T is 2:1. Find the number of female employees who joined AG Tech.

a. 100

b. 180

c. 160

d. 150

e. 200

14. Questions

Find the total number of female employees who joined all the companies together.

a. 1093

b. 1122

c. 1890

d. 893

e. 760

15. Questions

Find the ratio between the number of male employees who joined L&T to CTS.

a. 4:5

b. 6:7

c. 9:2

d. 5:4

e. 1:2

16. Questions

An article is marked up by 25% above its cost price and sold after giving a discount of Rs. 240. If the cost price of the article had been Rs. 100 less, there would have been a profit of 20% on the same selling price. Find the marked price of the article.

a. Rs. 3500

b. Rs. 3000

c. Rs. 2800

d. Rs. 3420

e. Rs. 1900

17. Questions

The ratio of the present age of A to B is 5:6, respectively. The age of A after 10 years will be 30% less than the age of B after 20 years. The present age of C is 5 years older than that of B. Find the present age of C.

a. 42 years

b. 35 years

c. 20 years

d. 30 years

e. 25 years

18. Questions

A mixture contains milk and water in the ratio of 12:17. If 377 litres of the mixture are replaced with 22 litres of milk and 27 litres of water, then the final ratio of milk and water becomes 5:7. Find the initial quantity of milk in the mixture.

a. 544 litres

b. 512 litres

c. 384 litres

d. 410 litres

e. 290 litres

19. Questions

The speed of the boat is 50% more than the speed of the stream. If the boat can travel 480 km downstream and 180 km upstream in 46 hours, then find the time taken to travel 144 km upstream.

a. 22 hours

b. 24 hours

c. 30 hours

d. 18 hours

e. 14 hours

20. Questions

The ratio of the number of apples to mangoes sold in Shop A is 5:4. The total number of apples sold in Shops A and B is 65, out of which Shop A contains 25 more apples than Shop B. The ratio of the number of mangoes sold in Shops A to B is 4:3. Find the total number of apples and mangoes sold in Shop B.

a. 56

b. 47

c. 45

d. 72

e. 60

21. Questions

What value should come in the place of (?) in the following questions?

$(2197)^{1/3} + 44 - (512)^{1/3} = (?)^2$

a. 9

b. 7

c. 8

d. 13

e. None of these

22. Questions

(480 ÷ 4) – 5 * 12 + √784 =?

a. 86

b. 80

c. 88

d. 90

e. 92

23. Questions

(1170 ÷ 6) – 12 * 6 + 9 * √9= ?

a. 120

b. 140

c. 180

d. 110

e. 150

24. Questions

(943 ÷ 23) * (18/41) * ? = 612

a. 31

b. 34

c. 37

d. 39

e. 36

25. Questions

3249/18 * 1/5 of 75 – 13^3= ?

a. 154.8

b. 510.5

c. 302

d. 405

e. None of these

26. Questions

What value should come in the place of (?) in the following number series?

31, 40, 22, 49, 13, ?

a. 26

b. 22

c. 42

d. 51

e. 58

27. Questions

17, ?, 47, 67, 77, 97

a. 20

b. 27

c. 30

d. 37

e. 40

28. Questions

4, 3, 6, 19, 78, ?

a. 291

b. 365

c. 297

d. 393

e. 329

29. Questions

2, 10, 40, ?, 240, 240

a. 120

b. 160

c. 200

d. 140

e. 240

30. Questions

21, ?, 46, 141, 568, 2845

a. 22

b. 29

c. 31

d. 40

e. 41

31. Questions

What approximate value should come in the place of (?) in the following questions.

$(21.09) * (9.99) + (31.98)^2 = ?$

a. 1234

b. 1238

c. 1228

d. 1220

e. 1216

32. Questions

399.95 ÷ 4.92 + ? ÷ 6.27 = 29.98 * 2.99

a. 60

b. 75

c. 80

d. 65

e. 55

33. Questions

420.02 ÷ 2.91 + 448.08 ÷ 3.98 = ?

a. 252

b. 285

c. 290

d. 295

e. 300

34. Questions

125.82 + 81.91 – 32.79 =? * 12.13

a. 5

b. 15

c. 25

d. 30

e. 35

35. Questions

17.14 * 2.78 – 15.31 * 2.42 = 12.12 * ?

a. 2

b. 15

c. 25

d. 30

e. 35

36. Questions

In each of the following number series, one number is wrong. Find out the wrong number.

4, 16, 112, 450, 7168, 157696

a. 7168

b. 450

c. 112

d. 157696

e. None of these

37. Questions

7, 28, 42, 53, 59, 62

a. 42

b. 59

c. 62

d. 53

e. None of these

38. Questions

87360, 21840, 4368, 728, 105, 13

a. 13

b. 4368

c. 105

d. 21840

e. None of these

39. Questions

157, 170, 179, 194, 208, 218

a. 179

b. 218

c. 170

d. 194

e. None of these

40. Questions

56, 75, 52, 79, 50, 83, 44

a. 75

b. 79

c. 83

d. 50

e. None of these

41. Questions

Following question contains two equations as I and II. You have to solve both equations and determine the relationship between them and give an answer as,

I). $x^2-10x+24 = 0$

II). $y^2-15y+54 = 0$

a. $x > y$

b. $x \geq y$

c. $x = y$ or relationship can't be determined

d. $x < y$

e. $x \leq y$

42. Questions

I). $x^2 = x + 182$

II). $-28y = (y^2 + 195)$

a. $x > y$

b. $x \geq y$

c. $x = y$ or relationship can't be determined.

d. $x < y$

e. $x \leq y$

43. Questions

I). $2x + 12y - 36 = 0$

II). $3x + 4y - 19 = 0$

a. $x > y$

b. $x \geq y$

c. $x = y$ or relationship can't be determined

d. $x < y$

e. $x \leq y$

44. Questions

I). $x^2 - 10x + 25 = 0$

II). $y^2 + 5y - 50 = 0$

a. $x > y$

b. $x \geq y$

c. $x = y$ or relationship can't be determined.

d. $x < y$

e. $x \leq y$

45. Questions

I). $x^2 - 38x + 240 = 0$

II). $y^2 = 900$

a. $x > y$

b. $x \geq y$

c. $x = y$ or relationship can't be determined

d. $x < y$

e. $x \leq y$

Explanations:

1. Questions

25% - 20% = 300

5% = 300

The total number of cookies sold on all the days = 6000

The total number of cookies sold on Monday = 6000 * 10/100 = 600

The total number of cookies sold on Tuesday = 6000 * 25/100 = 1500

The total number of cookies sold on Wednesday = 6000 * 20/100 = 1200

The total number of cookies sold on Thursday = 1500 + 300 = 1800

x = 100 – ((6000 -1800)/60)

x = 100 – 70

x = 30

Then y = 100 – (10+25+20+30) = 100 – 85 = 15

The total number of cookies sold on Friday = 6000 * 15/100 = 900

Answer: C

The total number of cookies sold on Friday = 900

The ratio of the number of cookies sold on Friday and Saturday = 30: 15 = 2:1

The total number of cookies sold on Saturday = 900 * 1/2= 450

Required percentage = (450/1500)*100 = 30%

2. Questions

25% - 20% = 300

5% = 300

The total number of cookies sold on all the days = 6000

The total number of cookies sold on Monday = 6000 * 10/100 = 600

The total number of cookies sold on Tuesday = 6000 * 25/100 = 1500

The total number of cookies sold on Wednesday = 6000 * 20/100 = 1200

The total number of cookies sold on Thursday = 1500 + 300 = 1800

x = 100 – ((6000 -1800)/60)

x = 100 – 70

x = 30

Then y = 100 – (10+25+20+30) = 100 – 85 = 15

The total number of cookies sold on Friday = 6000 * 15/100 = 900

Answer: C

The total number of cookies sold on Wednesday = 1200 * 120/100 = 1440

The total number of cookies sold on Thursday = 1800 + 1800*1/5 = 2160

Required sum = 1440 + 2160 + 900 = 4500

3. Questions

25% - 20% = 300

5% = 300

The total number of cookies sold on all the days = 6000

The total number of cookies sold on Monday = 6000 * 10/100 = 600

The total number of cookies sold on Tuesday = 6000 * 25/100 = 1500

The total number of cookies sold on Wednesday = 6000 * 20/100 = 1200

The total number of cookies sold on Thursday = 1500 + 300 = 1800

x = 100 – ((6000 -1800)/60)

x = 100 – 70

x = 30

Then y = 100 – (10+25+20+30) = 100 – 85 = 15

The total number of cookies sold on Friday = 6000 * 15/100 = 900

Answer: B

The total number of cookies sold on Monday = 600

The number of butter cookies sold on Monday = 600 * 20/100 = 120

The number of chocolate cookies sold on Monday = 600 * 25/100 = 150

The number of almond cookies sold on Monday = 600 * 30/100 = 180

The number of nuts cookies sold on Monday = 600 * 25/100 = 150

Required difference = 900 – [150 + 180] = 570

4. Questions

25% - 20% = 300

5% = 300

The total number of cookies sold on all the days = 6000

The total number of cookies sold on Monday = 6000 * 10/100 = 600

The total number of cookies sold on Tuesday = 6000 * 25/100 = 1500

The total number of cookies sold on Wednesday = 6000 * 20/100 = 1200

The total number of cookies sold on Thursday = 1500 + 300 = 1800

x = 100 – ((6000 -1800)/60)

x = 100 – 70

x = 30

Then y = 100 – (10+25+20+30) = 100 – 85 = 15

The total number of cookies sold on Friday = 6000 * 15/100 = 900

Answer: C

The total number of cookies sold on Tuesday = 1500

The total number of cookies sold on Friday = 900

The number of unsold cookies on Saturday = [1500 – 900] * 19/12 = 950

5. Questions

25% - 20% = 300

5% = 300

The total number of cookies sold on all the days = 6000

The total number of cookies sold on Monday = 6000 * 10/100 = 600

The total number of cookies sold on Tuesday = 6000 * 25/100 = 1500

The total number of cookies sold on Wednesday = 6000 * 20/100 = 1200

The total number of cookies sold on Thursday = 1500 + 300 = 1800

x = 100 – ((6000 -1800)/60)

x = 100 – 70

x = 30

Then y = 100 – (10+25+20+30) = 100 – 85 = 15

The total number of cookies sold on Friday = 6000 * 15/100 = 900

Answer: C

The total number of cookies sold on Wednesday = 1200

The number of type B cookies sold on Wednesday = 1200 * 5/12 = 500

6. Questions

Let, the number of workers in type z in Hospital B = 6a

The number of workers in type z in Hospital A = 6a * 1.5 = 9a

The number of workers in type y in Hospital A = 9a * 8/9 = 8a

The number of workers in type x in Hospital A = 8a * 75/100 = 6a

The number of workers in type x in Hospital B = (180 – 6a)

The number of workers in type y in Hospital B = (180 -6a) * 3/4 = 135 -4.5a

The total number of workers in Hospital A = 6a + 8a + 9a = 23a

The total number of workers in Hospital B = (180 -6a) + 135 -4.5a + 6a = 315 -4.5a

23a +315 – 4.5a = 500

18.5a = 185

a =10

The number of workers in type z in Hospital B = 6*10 =60

The number of workers in type y in Hospital B = 135 – 45 = 90

The number of workers in type x in Hospital B = 180 – 60 = 120

The number of workers in type x in Hospital A = 6 *10 = 60

The number of workers in type y in Hospital A = 8 * 10 = 80

The number of workers in type z in Hospital A = 9*10 =90

The total number of workers in Hospital A = 23 * 10 = 230

The total number of workers in Hospital B = 500 – 230 = 270

Hospitals	The number of workers in type x in the hospital	The number of workers in type y in the hospital	The number of workers in type z in the hospital
A	60	80	90
B	120	90	60

Answer: B

The total number of workers x in both hospitals = (60+120) = 180

7. Questions

Let, the number of workers in type z in Hospital B = 6a

The number of workers in type z in Hospital A = 6a * 1.5 = 9a

The number of workers in type y in Hospital A = 9a * 8/9 = 8a

The number of workers in type x in Hospital A = 8a * 75/100 = 6a

The number of workers in type x in Hospital B = (180 – 6a)

The number of workers in type y in Hospital B = (180 -6a) * 3/4 = 135 -4.5a

The total number of workers in Hospital A = 6a + 8a + 9a = 23a

The total number of workers in Hospital B = (180 -6a) + 135 -4.5a + 6a = 315 -4.5a

23a +315 – 4.5a = 500

18.5a = 185

a =10

The number of workers in type z in Hospital B = 6*10 =60

The number of workers in type y in Hospital B = 135 – 45 = 90

The number of workers in type x in Hospital B = 180 – 60 = 120

The number of workers in type x in Hospital A = 6 *10 = 60

The number of workers in type y in Hospital A = 8 * 10 = 80

The number of workers in type z in Hospital A = 9*10 =90

The total number of workers in Hospital A = 23 * 10 = 230

The total number of workers in Hospital B = 500 – 230 = 270

Hospitals	The number of workers in type x in the hospital	The number of workers in type y in the hospital	The number of workers in type z in the hospital
A	60	80	90
B	120	90	60

Answer: A

The total number of workers in Hospital C = 300

The number of workers in type x in Hospital C = 120 * 120/100 = 144

The number of workers in type y in Hospital C = 80 + 10 = 90

The number of workers in type z in Hospital C = 300 – 234 = 66

8. Questions

Let, the number of workers in type z in Hospital B = 6a

The number of workers in type z in Hospital A = 6a * 1.5 = 9a

The number of workers in type y in Hospital A = 9a * 8/9 = 8a

The number of workers in type x in Hospital A = 8a * 75/100 = 6a

The number of workers in type x in Hospital B = (180 – 6a)

The number of workers in type y in Hospital B = (180 -6a) * 3/4 = 135 -4.5a

The total number of workers in Hospital A = 6a + 8a + 9a = 23a

The total number of workers in Hospital B = (180 -6a) + 135 -4.5a + 6a = 315 -4.5a

23a +315 – 4.5a = 500

18.5a = 185

a =10

The number of workers in type z in Hospital B = 6*10 =60

The number of workers in type y in Hospital B = 135 – 45 = 90

The number of workers in type x in Hospital B = 180 – 60 = 120

The number of workers in type x in Hospital A = 6 *10 = 60

The number of workers in type y in Hospital A = 8 * 10 = 80

The number of workers in type z in Hospital A = 9*10 =90

The total number of workers in Hospital A = 23 * 10 = 230

The total number of workers in Hospital B = 500 – 230 = 270

Hospitals	The number of workers in type x in the hospital	The number of workers in type y in the hospital	The number of workers in type z in the hospital
A	60	80	90
B	120	90	60

Answer: D

The number of workers in type x in Hospital A = 60

The number of workers in type z in Hospital B = 60

Required ratio = 60:60 = 1:1

9. Questions

Let, the number of workers in type z in Hospital B = 6a

The number of workers in type z in Hospital A = 6a * 1.5 = 9a

The number of workers in type y in Hospital A = 9a * 8/9 = 8a

The number of workers in type x in Hospital A = 8a * 75/100 = 6a

The number of workers in type x in Hospital B = (180 – 6a)

The number of workers in type y in Hospital B = (180 -6a) * 3/4 = 135 -4.5a

The total number of workers in Hospital A = 6a + 8a + 9a = 23a

The total number of workers in Hospital B = (180 -6a) + 135 -4.5a + 6a = 315 -4.5a

23a +315 – 4.5a = 500

18.5a = 185

a =10

The number of workers in type z in Hospital B = 6*10 =60

The number of workers in type y in Hospital B = 135 – 45 = 90

The number of workers in type x in Hospital B = 180 – 60 = 120

The number of workers in type x in Hospital A = 6 *10 = 60

The number of workers in type y in Hospital A = 8 * 10 = 80

The number of workers in type z in Hospital A = 9*10 =90

The total number of workers in Hospital A = 23 * 10 = 230

The total number of workers in Hospital B = 500 – 230 = 270

Hospitals	The number of workers in type x in the hospital	The number of workers in type y in the hospital	The number of workers in type z in the hospital
A	60	80	90
B	120	90	60

Answer: B

The total number of workers in Hospital A = 230

The total number of workers in Hospital B = 270

Required difference = 270 – 230 = 40

10. Questions

Let, the number of workers in type z in Hospital B = 6a

The number of workers in type z in Hospital A = 6a * 1.5 = 9a

The number of workers in type y in Hospital A = 9a * 8/9 = 8a

The number of workers in type x in Hospital A = 8a * 75/100 = 6a

The number of workers in type x in Hospital B = (180 – 6a)

The number of workers in type y in Hospital B = (180 -6a) * 3/4 = 135 -4.5a

The total number of workers in Hospital A = 6a + 8a + 9a = 23a

The total number of workers in Hospital B = (180 -6a) + 135 -4.5a + 6a = 315 -4.5a

23a +315 – 4.5a = 500

18.5a = 185

a =10

The number of workers in type z in Hospital B = 6*10 =60

The number of workers in type y in Hospital B = 135 – 45 = 90

The number of workers in type x in Hospital B = 180 – 60 = 120

The number of workers in type x in Hospital A = 6 *10 = 60

The number of workers in type y in Hospital A = 8 * 10 = 80

The number of workers in type z in Hospital A = 9*10 =90

The total number of workers in Hospital A = 23 * 10 = 230

The total number of workers in Hospital B = 500 – 230 = 270

Hospitals	The number of workers in type x in the hospital	The number of workers in type y in the hospital	The number of workers in type z in the hospital
A	60	80	90
B	120	90	60

Answer: D

The number of workers in type x in Hospital A = 60 * 2 = 120

The number of workers in type y in Hospital A = 80 * 90/100 = 72

The number of workers in type z in Hospital A = 90 * 80/100 = 72

Required sum = 120 + 72 + 72 = 264

11. Questions

The total number of employees who joined TCS = 280

The number of male employees who joined TCS = 280 * 40/100 = 112

The number of female employees who joined TCS = 280 * 60/100 = 168

Similarly,

Company	Total number of employees joined	The number of male employees joined	The number of female employees joined
TCS	280	112	168
CTS	400	120	280
Wipro	750	450	300
L&T	300	150	150
HCL	650	455	195

Answer: C

The number of male employees who joined Wipro = 450

The number of female employees who joined Wipro = 300

5x + 5y = 450 –Rs.(1)

2.5x + 4y = 300 -- Rs. (2)

By solving equation (1) and (2), we get

x = 40, y =50

The number of female fresher employees = 4 * 50 = 200

12. Questions

The total number of employees who joined TCS = 280

The number of male employees who joined TCS = 280 * 40/100 = 112

The number of female employees who joined TCS = 280 * 60/100 = 168

Similarly,

Company	Total number of employees joined	The number of male employees joined	The number of female employees joined
TCS	280	112	168
CTS	400	120	280
Wipro	750	450	300
L&T	300	150	150
HCL	650	455	195

Answer: B

The number of male employees who joined Wipro = 450

The number of male employees who joined the marketing department in Wipro = 450 * 40/100 = 180

The number of male employees who joined the Finance department in Wipro = 450 – 180 = 270

The number of female employees who joined the Finance department in Wipro = 270 -55 = 215

The number of female employees who joined the Marketing department in Wipro = 300 – 215 = 85

13. Questions

The total number of employees who joined TCS = 280

The number of male employees who joined TCS = 280 * 40/100 = 112

The number of female employees who joined TCS = 280 * 60/100 = 168

Similarly,

Company	Total number of employees joined	The number of male employees joined	The number of female employees joined
TCS	280	112	168
CTS	400	120	280
Wipro	750	450	300
L&T	300	150	150
HCL	650	455	195

Answer: D

The total number of employees who joined AG tech = 400 + 50 = 450

The number of male employees who joined AG tech = 150 * 2/1 = 300

The number of female employees who joined AG tech = 450 – 300 = 150

14. Questions

The total number of employees who joined TCS = 280

The number of male employees who joined TCS = 280 * 40/100 = 112

The number of female employees who joined TCS = 280 * 60/100 = 168

Similarly,

Company	Total number of employees joined	The number of male employees joined	The number of female employees joined
TCS	280	112	168
CTS	400	120	280
Wipro	750	450	300
L&T	300	150	150
HCL	650	455	195

Answer: A

The total number of female employees who joined all the companies = (168 + 280 + 300+150 +195) =1093

15. Questions

The total number of employees who joined TCS = 280

The number of male employees who joined TCS = 280 * 40/100 = 112

The number of female employees who joined TCS = 280 * 60/100 = 168

Similarly,

Company	Total number of employees joined	The number of male employees joined	The number of female employees joined
TCS	280	112	168
CTS	400	120	280
Wipro	750	450	300
L&T	300	150	150
HCL	650	455	195

Answer: D

The number of male employees who joined L&T = 150

The number of male employees who joined CTS = 120

Required ratio = 150: 120 = 5:4

16. Questions

Answer: B

According to the question,

Let, the cost price of the article = Rs. x

The selling price of the article = Rs. (1.25x -240)

The new cost price of the article = Rs. (x -100)

The selling price of the article = Rs. 1.2(x -100)

1.2 (x -100) = 1.25x -240

0.05x = 120

x = 2400

The marked price of the article = 1.25 * 2400 = Rs. 3000

17. Questions

Answer: B

According to the question,

Let, the present age of A and B be 5x years and 6x years, respectively

(5x +10) = 0.7(6x +20)

5x – 4.2x = 14 -10

x = 5

The present age of B = 6 * 5 = 30 years

The present age of C = 30 + 5 = 35 years

18. Questions

Answer: C

According to the question,

The initial quantity of milk in the mixture = 12x

The initial quantity of water in the mixture = 17x

(12x – 156 +22)/(17x -221 +27) = 5/7

(12x – 134)/(17x – 194) = 5/7

84x – 938 = 85x – 970

x = 32

The initial quantity of milk in the mixture = 12 * 32 = 384 litres

19. Questions

Answer: B

According to the question,

The speed of the boat = 150/100 * speed of the stream

The ratio of the speed of the boat to the speed of the stream = 3:2

Let, the speed of the boat = 3x km/hr

The speed of the stream = 2x km/hr

The downstream speed = 3x + 2x = 5x km/hr

The upstream speed = 3x – 2x = x km/hr

(480/5x) + 180/x = 46

96/x + 180/x = 46

276/x = 46

x =6

The upstream speed = x = 6 km/hr

Required time taken = 144/6 = 24 hours

20. Questions

Answer: B

According to the question,

The total number of apples sold in Shops A and B = 65

A + B = 65 ----- (1)

A – B = 25 ------ (2)

The number of apples sold in Shop A = 45

The number of apples sold in Shop B = 20

The number of mangoes sold in Shop A = 45 * 4/5 = 36

The number of mangoes sold in Shop B = 36 * 3/4 = 27

Required sum = 20 + 27 = 47

21. Questions

Answer: B

$(2197)^{1/3} + 44 – (512)^{1/3} = (?)^2$

$(?)^2 = 13 + 44 – 8$

$49 = (?)^2$

?= 7

22. Questions

Answer: C

(480 ÷ 4) – 5 * 12 + √784 =?

120 – 60 + 28 =?

? = 88

23. Questions

Answer: E

(1170 ÷ 6) – 12 * 6 + 9 * √9 = ?

195 – 72 + 27 = ?

? = 150

24. Questions

Answer: B

(943 ÷ 23) * (18/41) * ? = 612

(41 * 18)/41 * ? = 612

? = 34

25. Questions

Answer: B

3249/18 * 1/5 of 75 – 13^3= ?

=> (180.5) * 15 – 13^3

=> 510.5

26. Questions

Answer: E

31 + 9 = 40

40 – 18 = 22

22 + 27 = 49

49 – 36 = 13

13 + 45 = **58**

27. Questions

Answer: D

17 + 10 * 2 = **37**

37 + 5 * 2 = 47

47 + 10 * 2 = 67

67 + 5 * 2 = 77

77 + 10 * 2 = 97

28. Questions

Answer: D

4 * 1 + (-1) = 3

3 * 2 + 0 = 6

6 * 3 + 1 = 19

19 * 4 + 2 = 78

78 * 5 + 3 = **393**

29. Questions

Answer: A

2 * 5 = 10

10 * 4 = 40

40 * 3 = **120**

120 * 2 = 240

30. Questions

Answer: A

21 * 1 + 1 = **22**

22 * 2 + 2 = 46

46 * 3 + 3 = 141

141 * 4 + 4 = 568

568 * 5 + 5 = 2845

31. Questions

Answer: A

$(21.09) * (9.99) + (31.98)^2 = ?$

210 + 1024 = ?

? = 1234

32. Questions

Answer: A

399.95 ÷ 4.92 + ? ÷ 6.27 = 29.98 * 2.99

80 + ?/6 = 90

? = 60

33. Questions

Answer: A

420.02 ÷ 2.91 + 448.08 ÷ 3.98 = ?

140 + 112 = ?

? = 252

34. Questions

Answer: B

125.82 + 81.91 – 32.79 =? * 12.13

=> 126 + 82 – 33 =? * 12

=> 15

35. Questions

Answer: A

17.14 * 2.78 – 15.31 * 2.42 = 12.12 * ?

=> (17 * 3) – (15 * 2) = 12 * ?

=> 21/12

=> 2

36. Questions

Answer: B

4*(0+4) =16

16*(1+6) =112

112*(1+1+2) =**448**

448*(4+4+8) =7168

7168*(7+1+6+8) =157696

37. Questions

Answer: A

7+ (3.5*6) =28

28+ (3*5) =**43**

43+ (2.5*4) =53

53+ (2*3) =59

59+ (1.5*2) =62

38. Questions

Answer: C

87360/4 = 21840

21840/5 = 4368

4368/6 = 728

728/7 = **104**

104/8 = 13

39. Questions

Answer: A

157+ (1+5+7) =170

170+ (1+7+0) =**178**

178+ (1+7+8) =194

194+ (1+9+4) =208

208+ (2+0+8) =218

40. Questions

Answer: D

56 + 19 = 75

75 – 23 = 52

52 + 27 = 79

79 – 31 = **48**

48 + 35 = 83

83 – 39 = 44

41. Questions

Answer: E

x^2-10x+24=0

x^2-6x-4x+24=0

x(x-6)-4(x-6)=0

x=6,4

y^2-6y-9y+54=0

y(y-6)-9(y-6)=0

y=6,9

Hence, x ≤ y

42. Questions

Answer: B

$x^2 = x + 182$

$x^2 – x – 182 = 0$

$x^2 – 14x + 13x – 182 = 0$

x(x – 14) + 13(x – 14) = 0

(x + 13)(x – 14) = 0

x = 14, -13

$-28y = (y^2 + 195)$

$y^2 + 28y + 195 = 0$

$y^2 + 13y + 15y + 195 = 0$

$y(y + 13) + 15(y + 13) = 0$

$(y + 15)(y + 13) = 0$

$y = -15, -13$

$x \geq y$

43. Questions

Answer: A

$2x + 12y - 36 = 0$------(1)

$3x + 4y - 19 = 0$ -----(2)

From (1) and (2)

$x = 3$

$y = 2.5$

$x > y$

44. Questions

Answer: B

$x^2 - 10x + 25 = 0$

$x^2 - 5x - 5x + 25 = 0$

$x(x - 5) - 5(x - 5) = 0$

$(x - 5)(x - 5) = 0$

$x = 5, 5$

$y^2 + 5y - 50 = 0$

$y^2 + 10y - 5y - 50 = 0$

$y(y + 10) - 5(y + 10) = 0$

$(y - 5)(y + 10) = 0$

$y = 5, -10$

$x \geq y$

45. Questions

Answer: C

$x^2 - 38x + 240 = 0$

$x^2 - 30x - 8x + 240 = 0$

$x(x - 30) - 8(x - 30) = 0$

$(x - 8)(x - 30) = 0$

$x = 8, 30$

$y^2 = 900$

$y = -30, 30$

Relationship between x and y cannot be established.