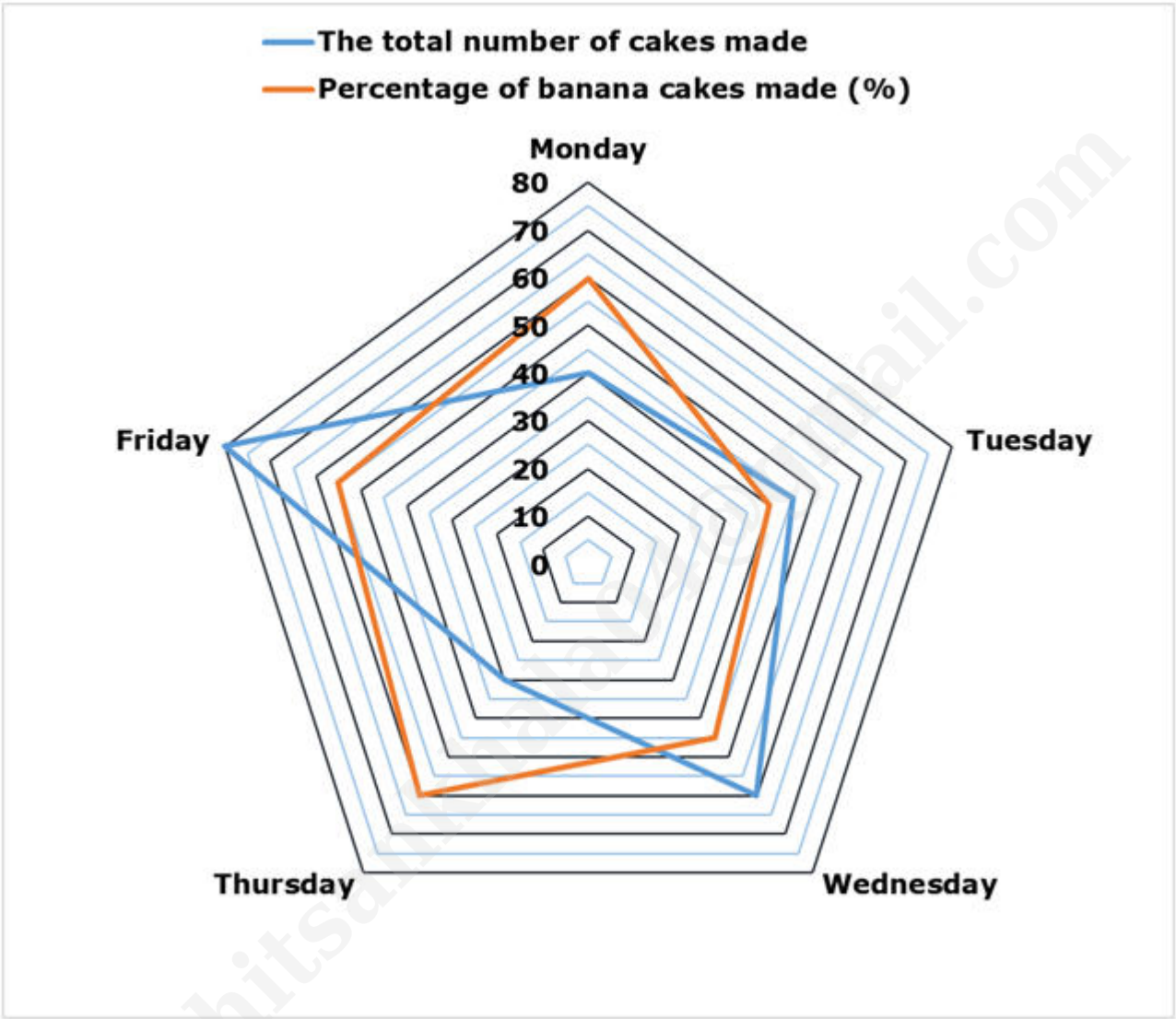
1. Questions

Study the following data carefully and answer the questions given below:

The given radar graph shows the total number of cakes (banana + pineapple) made on five different days from Monday to Friday and the percentage of banana cakes made out of the total number of cakes made on the given days.



Find the ratio of the average number of cakes made on Thursday and Friday together to the sum of the number of pineapple cakes made on Tuesday and Wednesday together.

a. 11:12

b. 12:13

c. 13:14

d. 14:11

e. 11:13

2. Questions

On Wednesday, the number of banana cakes sold is 7 more than number of unsold banana cakes,

and 4 less than the number of pineapple cakes sold on the same day. Find the number of pineapple cakes unsold on Wednesday.

a. 15
b. 18
c. 22
d. 8
e. 12

3. Questions

The ratio of the total number of cakes to the number of cookies made on Tuesday is 5:8 and the ratio of the number of cookies sold to unsold on Tuesday is 4:5, then the number of cookies sold on Tuesday is what percentage of the sum of the total number of cakes made on Monday and Friday together?

a. 24.3%
b. 45%
c. 26.66%
d. 27.2%
e. 36%

4. Questions

If the total number of cakes and the number of banana cakes made on Saturday are 120% more and 33.33% less than that on Thursday respectively, then find the number of pineapple cakes made on Saturday.

a. 64
b. 34
c. 24
d. 54
e. 44

5. Questions

The average number of banana, pineapple and chocolate cakes made on Friday is 32. If 25% of the chocolate cakes are unsold on Friday, then find the difference between the number of chocolate cakes sold on Friday and the number of pineapple cakes made on Wednesday.

a. 13
b. 21

c. 11

d. 16

e. 22

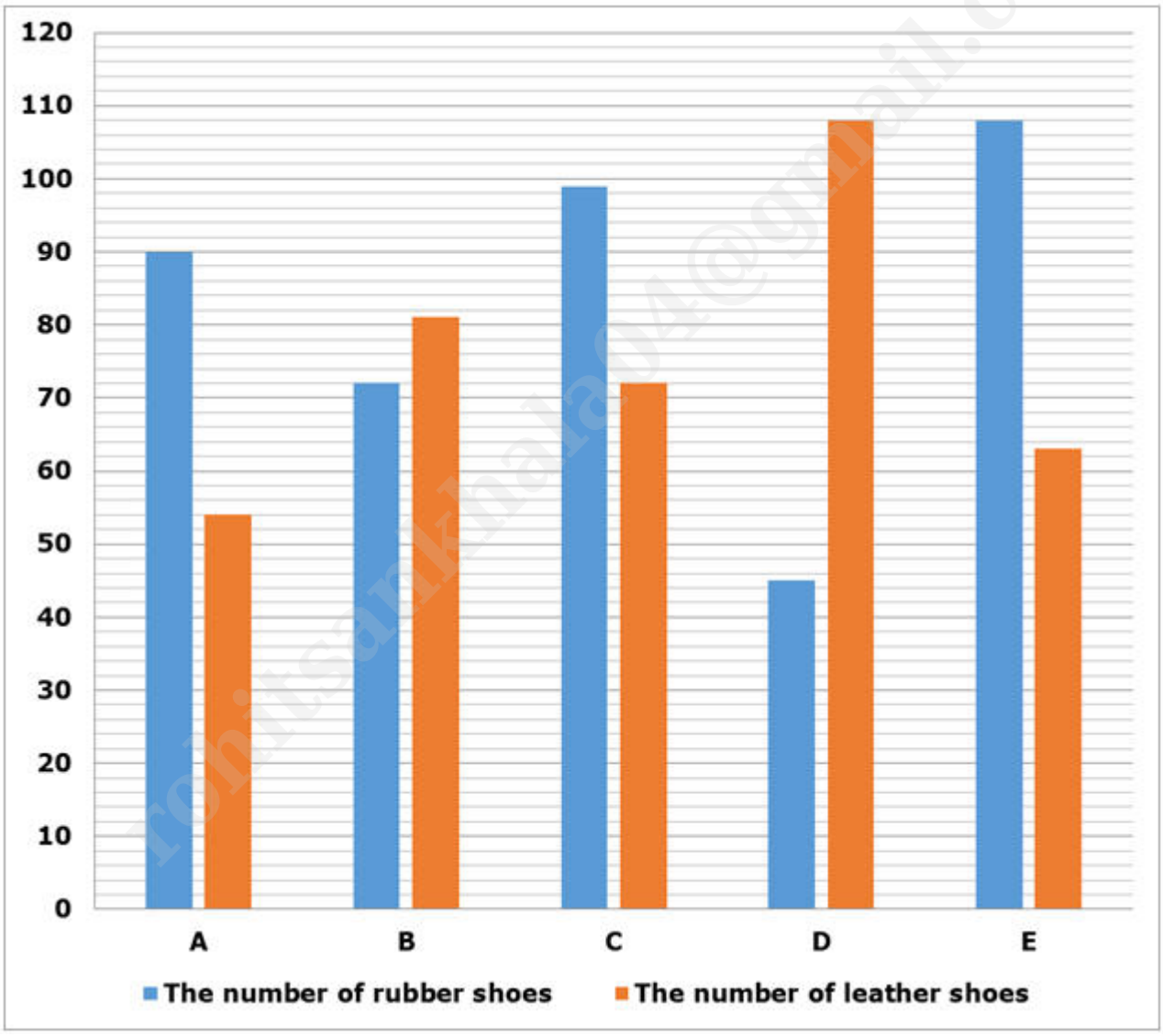
6. Questions

Study the following data carefully and answer the questions given below:

The given bar graph shows the number of rubber shoes and the number of leather shoes in five different shops i.e. A, B, C, D and E.

Note:

The total number of shoes in each shop = The number of rubber shoes + The number of leather shoes.



If the total number of shoes in F is the sum of the number of rubber shoes in B and E together and the number of leather shoes in F is equal to the difference between the number of leather and rubber shoes in D, then find the number of rubber shoes in F.

a. 107

b. 67

c. 117

d. 87

e. 77

7. Questions

In D, if 20% of rubber shoes are bought by females and 75% of leather shoes are bought by females, then find the total number of shoes bought by males in D.

a. 45

b. 63

c. 36

d. 60

e. 52

8. Questions

Out of the total number of shoes in B, 53 shoes are sold and the remaining shoes are unsold. If the number of leather unsold shoes in B is 54, then find the number of rubber shoes sold in B.

a. 19

b. 26

c. 29

d. 16

e. 9

9. Questions

If the ratio of the number of rubber shoes sold in C to D is 23:10 and the ratio of the number of rubber shoes unsold in C to D is 2:1, then find the number of unsold rubber shoes in C and D together.

a. 45

b. 48

c. 30

d. 99

e. 60

10. Questions

If the total cost price of all the shoes in A is Rs. 800 and each rubber shoe and each leather shoe were sold at Rs. 5 and Rs. 8 respectively, then find the total profit/loss incurred in A, if all the shoes

are sold.

a. Rs. 82 loss

b. Rs. 72 profit

c. Rs. 82 profit

d. Rs. 64 profit

e. Rs. 96 loss

11. Questions

Study the following data carefully and answer the questions given below:

In a survey, 700 persons bought three different coloured balls i.e. red, blue and green in a shop and all of them bought atleast one of the three balls. The number of persons who bought red balls only is 154 which is 2.75 times the number of persons who bought green balls only. The number of persons who bought red and blue balls but not green is 14% of the total number of persons. The number of persons who bought red and green balls but not blue is 14 more than the number of persons who bought red and blue balls but not green. The ratio of the number of persons who bought blue and green balls but not red to the number of persons who bought red and blue balls but not green is 6:7 respectively. The number of persons who purchased all three balls is 70.

The sum of the number of persons who bought both red and blue but not green and that both red and green but not blue is how much percent more than the number of persons who bought both blue and green but not red?

a. 145%

b. 140%

c. 150%

d. 172%

e. 156%

12. Questions

Find the sum of the total number of persons who bought both red and green balls and the number of persons who bought blue balls only.

a. 175

b. 204

c. 248

d. 308

e. 188

13. Questions

Find the average number of persons who bought blue balls and those who bought green balls.

a. 700

b. 625

c. 540

d. 420

e. 350

14. Questions

If 20% of persons who did not buy any balls in a shop, then find the difference between the number of persons who did not buy any balls in a shop and the number of persons who bought only blue balls.

a. 35

b. 49

c. 54

d. 63

e. 24

15. Questions

Find the ratio of the number of persons who bought at least three items to the number of persons who bought at most two items.

a. 1:9

b. 2:9

c. 3:1

d. 1:3

e. 9:1

16. Questions

If 648 ml of mixture A contains milk to water in the ratio of 5:4 is mixed with another mixture B containing milk to water in the ratio of 10:3 such that the quantity of water in the resultant mixture is 25% less than that of milk. Find the quantity of mixture B.

a. 32 ml

b. 42 ml

c. 52 ml

d. 62 ml

e. 72 ml

17. Questions

The ratio of present ages of A and B is 4:3 respectively. 6 years ago from now, C was twice as old as B at that time. After 5 years from now, the sum of the ages of A, B and C will be 74 years. Find the present age of C.

a. 24 years

b. 32 years

c. 27 years

d. 18 years

e. 35 years

18. Questions

A man covered 4/9th part of his journey by train with an average speed of 100 km/hr, 1/3rd of his journey by car with an average speed of 75 km/hr and the rest by truck with an average speed of 40 km/hr. If the total time taken by a man to complete the whole journey is 13 hours, then find the total distance travelled by the man.

a. 940 km

b. 920 km

c. 1000 km

d. 500 km

e. 900 km

19. Questions

A team of 6 players is to be formed from a group of 8 boys and 6 girls. Find the number of ways in which the team has at least 3 girls and atmost 4 boys can be chosen.

a. 1584

b. 1532

c. 1529

d. 1548

e. 1589

20. Questions

An article is marked 28% above its cost price and sold after a discount of 25%, such that its selling price issame, if it had been sold after marking it 40% above its cost price and offering two successive discounts of 20% and Rs. 280 respectively. Find the cost price of the article.

a. Rs. 1750

b. Rs. 2400

c. Rs. 1280

d. Rs. 2000

e. Rs. 1880

21. Questions

A, B and C are hired to do a certain piece of work for Rs. 6975. All of them started working together and finished the work in 20 days. A received Rs. 2325 for his work. In how many days, B alone can complete the work, if C alone can complete the work in 50 days?

a. 60 days

b. 75 days

c. 84 days

d. 24 days

e. 48 days

22. Questions

3 people (X, Y and Z) went to a cake shop. X purchased 5 pastries, Y purchased 6pastries and Z gave some money to X and Y for pastries. Find the ratio of X and Y should distribute the money given by Z, between them if each of three purchased equal quantity of pastry.

a. 1:4

b. 4:7

c. 7:3

d. 1:3

e. 3:4

23. Questions

The ratio of the length and breadth of a rectangle is 6:5. If the length of the rectangle is increased by 25% while the breadth of the rectangle remains the same, then the area of the rectangle is increased by 120 m^2, then find the perimeter of the rectangle.

a. 66 m

b. 88 m

c. 154 m

d. 72 m

e. 165 m

24. Questions

A boat takes 8 hours to cover 384 km upstream while 11 hours to cover 704 km downstream. If the speed of the boat in still water is decreased by 12.5% and the speed of the stream is increased by 25%, then find the time taken by the boat to cover 767 km in downstream.

a. 13 hours

b. 17 hours

c. 15.5 hours

d. 22 hours

e. 10 hours

25. Questions

M and N started a business by investing in the ratio of 3:4 respectively. M, works as a manager and entitled to draw a salary of 30% out of the total profit. If at the end of a year, the total amount received by M is Rs. 6000 more than that by N, then find the total profit earned from the business.

a. Rs. 12000

b. Rs. 18000

c. Rs. 30000

d. Rs. 24000

e. Rs. 36000

26. Questions

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

294.95 + 35.12 * 8.93 – 19.87% of 450.08 = ? * 12.86

a. 12

b. 50

c. 80

d. 25

e. 40

27. Questions

[360 + 119.98% of 400] ÷ [(80% of 349.87) - (20.12% of 799.89)] = ?

a. 21

b. 35

c. 7

d. 42

e. 28

28. Questions

(44.87% of 179.82) + (89.91% of 360.15) = 125.12 + (?% of 499.84)

a. 66

b. 56

c. 42

d. 48

e. 60

29. Questions

25.21 * 49.62 + 75.153 + 99.998 – 125.332 = ?

a. 1000

b. 720

c. 1200

d. 1300

e. 1160

30. Questions

39.87% of 3499.89 – 60.12% of 1500.02 = $2^{?}$ – 2.98 * 4.08

a. 8

b. 12

c. 9

d. 10

e. 18

31. Questions

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

11, ?, 39, 56, 75, 96

a. 29

b. 26

c. 24

d. 31

e. 27

32. Questions

112, 137, 88, 169, ?, 217

a. 96

b. 48

c. 90

d. 81

e. 72

33. Questions

132, 144, 114, ?, 96, 180

a. 120

b. 184

c. 136

d. 162

e. 124

34. Questions

3840, 1920, 480, 80, ?, 1

a. 10

b. 12

c. 15

d. 18

e. 9

35. Questions

1, 3, 9, 31, 129, ?

a. 780

b. 909

c. 645

d. 691

e. 651

36. Questions

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

I). $2x^2 + 2 = 5x$

II). $y^2 - 8y + 16 = 0$

a. $x \geq y$

b. $x \leq y$

c. $x < y$

d. x = y or the relation cannot be established.

e. $x > y$

37. Questions

I). $x^2 - 43x + 450 = 0$

II). $y^2 - 30y + 216 = 0$

a. $x > y$

b. $x \geq y$

c. $x < y$

d. x = y or the relation cannot be established.

e. $x \leq y$

38. Questions

I). $x^2 - 33x + 270 = 0$

II). $y^2 - 21y + 108 = 0$

a. $x > y$

b. $x \geq y$

c. $x \leq y$

d. x = y or the relation cannot be established.

e. $x < y$

39. Questions

I). $x^2 - 27x + 180 = 0$

II). $y^2 - 25y + 126 = 0$

a. $x > y$

b. $x \geq y$

c. $x < y$

d. $x = y$ or the relation cannot be established.

e. $x \leq y$

40. Questions

I). $x^2 + 36x + 320 = 0$

II). $y^2 - 5y - 336 = 0$

a. $x > y$

b. $x \geq y$

c. $x \leq y$

d. $x < y$

e. $x = y$ or the relation cannot be established.

Explanations:

1. Questions

On Monday:

The total number of cakes made = 40

The number of banana cakes made = 40 * (60/100) = 24

The number of pineapple cakes made = 40 – 24 = 16

Similarly, we can calculate other values.

Days	The total number of cakes made	The number of banana cakes made	The number of pineapple cakes made
Monday	40	24	16
Tuesday	45	18	27
Wednesday	60	27	33
Thursday	30	18	12
Friday	80	44	36

Answer: A

The average number of cakes made on Thursday and Friday together = [30 + 80]/2 = 55

The sum of the number of pineapple cakes made on Tuesday and Wednesday = 27 + 33 = 60

Required ratio = 55:60 = 11:12

2. Questions

On Monday:

The total number of cakes made = 40

The number of banana cakes made = 40 * (60/100) = 24

The number of pineapple cakes made = 40 – 24 = 16

Similarly, we can calculate other values.

Days	The total number of cakes made	The number of banana cakes made	The number of pineapple cakes made
Monday	40	24	16
Tuesday	45	18	27
Wednesday	60	27	33
Thursday	30	18	12
Friday	80	44	36

Answer: E

Let the number of banana cakes unsold on Wednesday be x

So, the number of banana cakes sold on Wednesday = x + 7

The number of pineapple cakes sold on Wednesday = x + 11

According to the question,

x + x + 7 = 27

2x = 20

x = 10

The number of pineapple cakes sold on Wednesday = 10 + 11 = 21

The number of pineapple cakes unsold on Wednesday = 33 – 21 = 12

3. Questions

On Monday:

The total number of cakes made = 40

The number of banana cakes made = 40 * (60/100) = 24

The number of pineapple cakes made = 40 – 24 = 16

Similarly, we can calculate other values.

Days	The total number of cakes made	The number of banana cakes made	The number of pineapple cakes made
Monday	40	24	16
Tuesday	45	18	27
Wednesday	60	27	33
Thursday	30	18	12
Friday	80	44	36

Answer: C

The number of cookies made on Tuesday = 45 * (8/5) = 72

Number of sold cookies on Tuesday = 4/9 * 72 = 32

The sum of the number of cakes made on Monday and Friday together = 40 + 80 = 120

Required % = (32/120) * 100 = 26.66%

4. Questions

On Monday:

The total number of cakes made = 40

The number of banana cakes made = 40 * (60/100) = 24

The number of pineapple cakes made = 40 – 24 = 16

Similarly, we can calculate other values.

Days	The total number of cakes made	The number of banana cakes made	The number of pineapple cakes made
Monday	40	24	16
Tuesday	45	18	27
Wednesday	60	27	33
Thursday	30	18	12
Friday	80	44	36

Answer: D

The total number of cakes made on Saturday = 30 * [1 + (120/100)]

= 30 * (220/100) = 66

The number of banana cakes made on Saturday = 18 * [1 - (1/3)]

= 18 * (2/3) = 12

The number of pineapple cakes made on Saturday = 66 – 12 = 54

5. Questions

On Monday:

The total number of cakes made = 40

The number of banana cakes made = 40 * (60/100) = 24

The number of pineapple cakes made = 40 – 24 = 16

Similarly, we can calculate other values.

Days	The total number of cakes made	The number of banana cakes made	The number of pineapple cakes made
Monday	40	24	16
Tuesday	45	18	27
Wednesday	60	27	33
Thursday	30	18	12
Friday	80	44	36

Answer: B

The total number of cakes made on Friday = 32 * 3 = 96

The number of chocolate cakes made on Friday = 96 – 80 = 16

Number of sold chocolate cakes on Friday = 16 * 75/100 = 12

Required difference = 33 – 12 = 21

6. Questions

Shops	The number of rubber shoes	The number of leather shoes
A	90	54
B	72	81
C	99	72
D	45	108
E	108	63

Answer: C

The total number of shoes in F = 72 + 108 = 180

The number of leather shoes in F = 108 – 45 = 63

The number of rubber shoes in F = 180 – 63 = 117

7. Questions

Shops	The number of rubber shoes	The number of leather shoes
A	90	54
B	72	81
C	99	72
D	45	108
E	108	63

Answer: B

The number of rubber shoes are bought by males in D = 45 * [1 - (20/100)] = 45 * (80/100) = 36

The number of leather shoes are bought by males in D = 108 * [1 - (75/100)] = 108 * (25/100) = 27

Required answer = 36 + 27 = 63

8. Questions

Shops	The number of rubber shoes	The number of leather shoes
A	90	54
B	72	81
C	99	72
D	45	108
E	108	63

Answer: B

The number of unsold shoes in B = [72 + 81] – 53 = 100

The number of rubber unsold shoes in B = 100 – 54 = 46

The number of rubber shoes sold in B = 72 – 46 = 26

9. Questions

Shops	The number of rubber shoes	The number of leather shoes
A	90	54
B	72	81
C	99	72
D	45	108
E	108	63

Answer: A

The number of rubber shoes sold in C and D is 23x and 10x respectively and the number of rubber shoes unsold in C and D is 2y and y respectively

23x + 2y = 99

10x + y = 45

3x = 9

x = 3

y = 45 – 30 = 15

Required answer = 3 * 15 = 45

10. Questions

Shops	The number of rubber shoes	The number of leather shoes
A	90	54
B	72	81
C	99	72
D	45	108
E	108	63

Answer: C

Total selling price of all rubber shoes in A = 90 * 5 = Rs. 450

Total selling price of all leather shoes in A = 54 * 8 = Rs. 432

So, total selling price = 450 + 432 = Rs. 882

Required total profit = 882 – 800 = Rs. 82

11. Questions

The number of persons who bought red balls only = 154

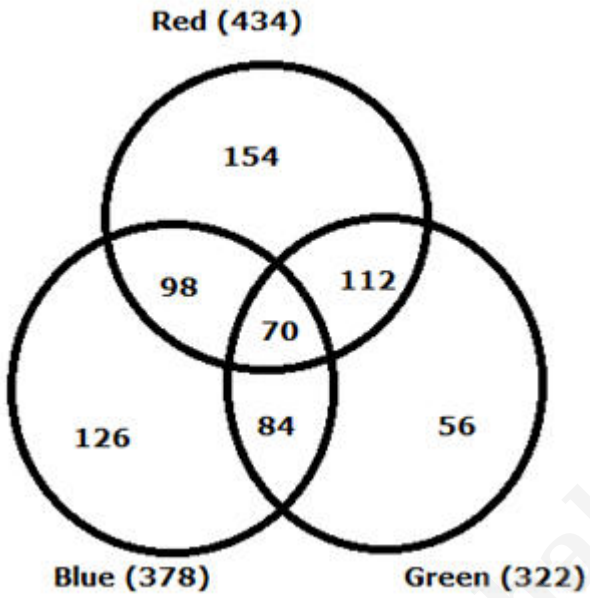
The number of persons who bought green balls only = 154/2.75 = 56

The number of persons who bought red and blue balls but not green = 700 * (14/100) = 98

The number of persons who bought red and green balls but not blue = 14 + 98 = 112

The number of persons who bought blue and green balls but not red = 98 * (6/7) = 84

The number of persons who bought blue balls only = 700 – [154 + 56 + 98 + 112 + 84 + 70] = 126



Answer: C

The sum of the number of persons who bought both red and blue but not green and that both red and green but not blue = 98 + 112 = 210

Required % = [(210 – 84)/84] * 100

= (126/84) * 100 = 150%

12. Questions

The number of persons who bought red balls only = 154

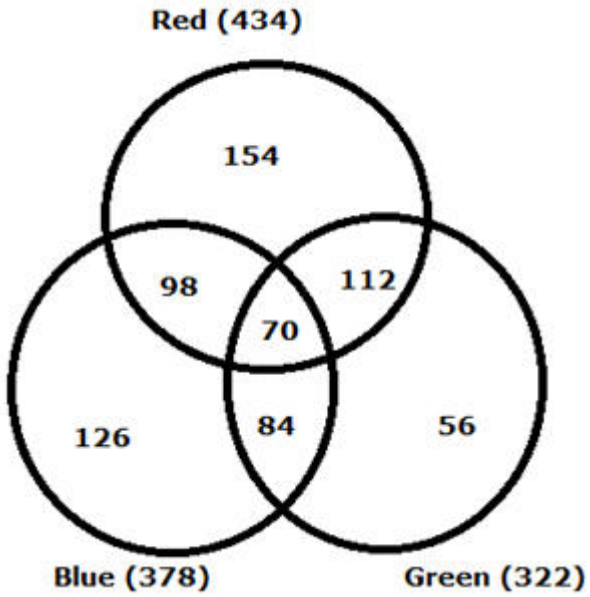
The number of persons who bought green balls only = 154/2.75 = 56

The number of persons who bought red and blue balls but not green = 700 * (14/100) = 98

The number of persons who bought red and green balls but not blue = 14 + 98 = 112

The number of persons who bought blue and green balls but not red = 98 * (6/7) = 84

The number of persons who bought blue balls only = 700 – [154 + 56 + 98 + 112 + 84 + 70] = 126



Answer: D

The total number of persons who bought both red and green balls = 70 + 112 = 182

Required sum = 182 + 126 = 308

13. Questions

The number of persons who bought red balls only = 154

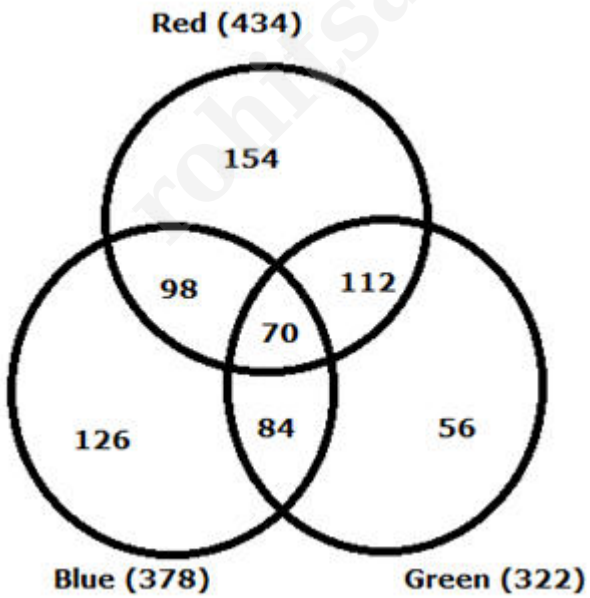
The number of persons who bought green balls only = 154/2.75 = 56

The number of persons who bought red and blue balls but not green = 700 * (14/100) = 98

The number of persons who bought red and green balls but not blue = 14 + 98 = 112

The number of persons who bought blue and green balls but not red = 98 * (6/7) = 84

The number of persons who bought blue balls only = 700 – [154 + 56 + 98 + 112 + 84 + 70] = 126



Answer: E

The number of persons who bought blue balls = 126 + 84 + 70 + 98 = 378

The number of persons who bought green balls = 56 + 84 + 70 + 112 = 322

Required average = [378 + 322]/2 = 350

14. Questions

The number of persons who bought red balls only = 154

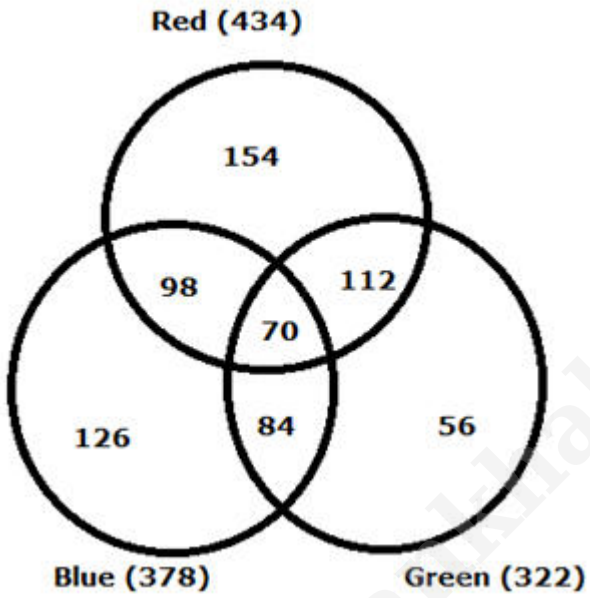
The number of persons who bought green balls only = 154/2.75 = 56

The number of persons who bought red and blue balls but not green = 700 * (14/100) = 98

The number of persons who bought red and green balls but not blue = 14 + 98 = 112

The number of persons who bought blue and green balls but not red = 98 * (6/7) = 84

The number of persons who bought blue balls only = 700 – [154 + 56 + 98 + 112 + 84 + 70] = 126



Answer: B

The number of persons who did not buy any balls in a shop = 700 * (20/80) = 175

Required difference = 175 – 126 = 49

15. Questions

The number of persons who bought red balls only = 154

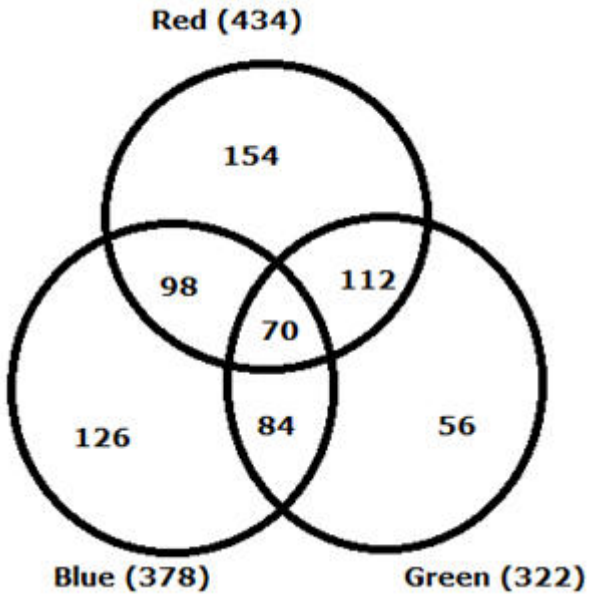
The number of persons who bought green balls only = 154/2.75 = 56

The number of persons who bought red and blue balls but not green = 700 * (14/100) = 98

The number of persons who bought red and green balls but not blue = 14 + 98 = 112

The number of persons who bought blue and green balls but not red = 98 * (6/7) = 84

The number of persons who bought blue balls only = 700 – [154 + 56 + 98 + 112 + 84 + 70] = 126



Answer: A

The number of persons who bought at least three items = 70

The number of persons who bought at most two items = 154 + 112 + 56 + 84 + 126 + 98 = 630

Required ratio = 70:630 = 1:9

16. Questions

Answer: C

The quantity of milk in the mixture A = 648 * (5/9) = 360 ml

The quantity of water in the mixture A = 648 – 360 = 288 ml

Let the quantity of milk and water in mixture B be 10x ml and 3x ml respectively.

According to the question,

[10x + 360]/ [3x + 288] = 100/75

[10x + 360] * 3 = [3x + 288] * 4

30x + 1080 = 12x + 1152

18x = 72

x = 4

Required quantity of mixture B = 13 * 4 = 52 ml

17. Questions

Answer: A

Let the present ages of A and B be 4x years and 3x years respectively.

Before 6 years ago, the age of B = (3x – 6) years

Before 6 years ago, the age of C = (3x – 6) * 2 = (6x – 12) years

According to the question,

(4x + 5) + (3x + 5) + (6x – 12 + 11) = 74

13x + 9 = 74

13x = 65

x = 5

The present age of C = 6x – 12 + 6 = (6 * 5) – 6 = 24 years

18. Questions

Answer: E

Let the total distance travelled by the man be 9d km.

According to the question,

(4/9) * (9d/100) + (1/3) * (9d/75) + (2/9) * (9d/40) = 13

(d/ 25) + (d/ 25) + (d/ 20) = 13

[4d + 4d + 5d]/100 = 13

13d = 13 * 100

d = 100

Required total distance = 9 * 100 = 900 km

19. Questions

Answer: E

According to the question,

The number of ways to be formed a group = $[^8C_3 * {}^6C_3] + [^8C_2 * {}^6C_4] + [^8C_1 * {}^6C_5] + [^6C_6]$

= [(8 * 7 * 6)/ (3 * 2 * 1)] * [(6 * 5 * 4)/ (3 * 2 * 1)] + [(8 * 7)/ (2 * 1) * (6 * 5 * 4 * 3)/ (4 * 3 * 2 * 1)] + [8 * (6 * 5 * 4 * 3 * 2)/ (5 * 4 * 3 * 2 * 1)] + 1

= [56 * 20] + [28 * 15] + [8 * 6] + 1

= 1120 + 420 + 48 + 1

Required ways = 1589

20. Questions

Answer: A

Let the cost price of the article be Rs. 100x

According to the question,

100x * (128/100) * (75/100) = [100x * (140/100) * (80/100)] – 280

32x * 3 = [14x * 8] - 280

96x = 112x – 280

112x – 96x = 280

16x = 280

x = 17.5

Required cost price of the article = 17.5 * 100 = Rs. 1750

21. Questions

Answer: B

Time taken by A alone to complete the work = (6975/2325) * 20 = 60 days

Let the total work = 300 units (LCM of 50, 60 and 20)

The amount of work done by A alone in one day = 300/60 = 5 units

The amount of work done by C alone in one day = 300/50 = 6 units

The amount of work done by A, B and C together in one day = 300/20 = 15 units

The amount of work done by B alone in one day = 15 – 6 – 5 = 4 units

Time taken by B alone to complete the work = 300/4 = 75 days

22. Questions

Answer: B

The total number of pastries in the shop = 5 + 6 = 11

The quantity of pastries purchased by each of them = 11/3

Extra pastries purchased by X = 5 - (11/3) = 4/3

Extra pastries purchased by Y = 6 - (11/3) = 7/3

Required ratio = (4/3): (7/3) = 4:7

23. Questions

Answer: B

Let the length and breadth of the rectangle are 6x meters and 5x meters respectively.

The area of rectangle = 6x * 5x = $30x^2$ m^2

When the length is increased, area of the rectangle = (125/100) * (6x * 5x) = $37.5x^2$ m^2

According to the question,

$37.5x^2 - 30x^2 = 120$

$7.5x^2 = 120$

$x^2 = 16$

x = 4

The perimeter of rectangle = 2 [(6 * 4) + (5 * 4)]

= 2 [24 + 20] = 88 m

24. Questions

Answer: A

The upstream speed = 384/8 = 48 km/hr

The downstream speed = 704/11 = 64 km/hr

The speed of the boat in still water = [48 + 64]/2 = 112/2 = 56 km/hr

The speed of the stream = 64 – 56 = 8 km/hr

Decreased speed of the boat in still water = 56 * [1 - (1/8)]

= 56 * [7/8] = 49 km/hr

Increased speed of the stream = 8 * [1 + (1/4)] = 10 km/hr

Required time taken = 767/ (49 + 10)

= 767/59 = 13 hours

25. Questions

Answer: C

Let the sum invested by M and N be Rs. 3x and Rs. 4x respectively.

So, the ratio of profit shares of M and N at the end of a year = (3x * 12): (4x * 12) = 3:4

Let the total profit earned from the business be Rs. 10x

So, the commission of M = 10x * (30/100) = Rs. 3x

The total share of M = (10x – 3x) * (3/7) + 3x = Rs. 6x

The share of N = 10x – 6x = Rs. 4x

According to the question,

6x – 4x = 6000

2x = 6000

x = 3000

Required profit = 10 * 3000 = Rs. 30000

26. Questions

Answer: E

294. 95 + 35.12 * 8.93 – 19.87% of 450.08 = ? * 12.86

295 + (35 * 9) - (20% of 450) = ? * 13

315 + 295 – 90 = ? * 13

610 – 90 = 13 * ?

520/13 = ?

? = 40

Hence, option E

27. Questions

Answer: C

[360 + 119.98% of 400] ÷ [(80% of 349.87) - (20.12% of 799.89)] = ?

[360 + 480]/ [280 – 160] = ?

840/120 = ?

? = 7

Hence, option C

28. Questions

Answer: B

(44.87% of 179.82) + (89.91% of 360.15) = 125 + (?% of 499.84)

(45% of 180) + (90% of 360) = 125 + (?% of 500)

81 + 324 = 125 + 5 * ?

405 – 125 = 5 * ?

280/5 = ?

? = 56

Hence, option B

29. Questions

Answer: D

25.21 * 49.62 + 75.153 + 99.998 – 125.332 = ?

25 * 50 + 75 + 100 – 125 = ?

1250 + 50 = ?

? = 1300

Hence, option D

30. Questions

Answer: C

39.87% of 3499.89 – 60.12% of 1500.02 = $2^{?}$ – 2.98 * 4.08

40% of 3500 – 60% of 1500 = $2^{?}$ – 3 * 4

(40 * 35) - (60 * 15) = $2^{?}$ – 12

1400 – 900 = $2^{?}$ – 12

512 = $2^{?}$

$2^{9} = 2^{?}$

? = 9

Hence, option C

31. Questions

Answer: C

The given series follows the following pattern:

11	**24**	39	56	75	96
	+13	+15	+17	+19	+21
		+2	+2	+2	+2

Hence, option C

32. Questions

Answer: B

The given series follows the following pattern:

112 + 5^2 = 137

137 - 7^2 = 88

88 + 9^2 = 169

169 - 11^2 = 48

48 + 13^2 = 217

Hence, option B

33. Questions

Answer: D

The given series follows the following pattern:

132 + (6 * 2) = 144

144 - (6 * 5) = 114

114 + (6 * 8) = 162

162 - (6 * 11) = 96

96 + (6 * 14) = 180

Hence, option D

34. Questions

Answer: A

The given series follows the following pattern:

3840 ÷ 2 = 1920

1920 ÷ 4 = 480

480 ÷ 6 = 80

80 ÷ 8 = 10

10 ÷ 10 = 1

Hence, option A

35. Questions

Answer: E

The given series follows the following pattern:

(1 * 1) + 2 = 3

(3 * 2) + 3 = 9

(9 * 3) + 4 = 31

(31 * 4) + 5 = 129

(129 * 5) + 6 = 651

Hence, option E

36. Questions

Answer: C

From I,

$2x^2 + 2 = 5x$

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

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

$2x (x - 2) - 1 (x - 2) = 0$

$(x - 2) (2x - 1) = 0$

$x = +2, +1/2$

From II,

$y^2 - 8y + 16 = 0$

$y^2 - 4y - 4y + 16 = 0$

$y (y - 4) - 4 (y - 4) = 0$

$(y - 4) (y - 4) = 0$

$y = +4, +4$

x	Relation	y
+2	<	+4
+2	<	+4
+1/2	<	+4
+1/2	<	+4

So, $x < y$

Hence, option C

37. Questions

Answer: B

From I,

$x^2 - 43x + 450 = 0$

$x^2 - 18x - 25x + 450 = 0$

$x (x - 18) - 25 (x - 18) = 0$

$(x - 18) (x - 25) = 0$

$x = +18, +25$

From II,

$y^2 - 30y + 216 = 0$

$y^2 - 18y - 12y + 216 = 0$

$y(y - 18) - 12 (y - 18) = 0$

$(y - 18) (y - 12) = 0$

$y = +18, +12$

x	relation	Y
+18	=	+18
+18	>	+12
+25	>	+18
+25	>	+12

So, x ≥ y

Hence, option B

38. Questions

Answer: A

From I,

$x^2 - 33x + 270 = 0$

$x^2 - 15x - 18x + 270 = 0$

$x(x - 15) - 18(x - 15) = 0$

$(x - 15)(x - 18) = 0$

$x = +15, +18$

From II,

$y^2 - 21y + 108 = 0$

$y^2 - 12y - 9y + 108 = 0$

$y(y - 12) - 9(y - 12) = 0$

$(y - 9)(y - 12) = 0$

$y = +9, +12$

x	Relation	y
+15	>	+9
+15	>	+12
+18	>	+9
+18	>	+12

So, x > y

Hence, option A

39. Questions

Answer: D

From I,

$x^2 - 27x + 180 = 0$

$x^2 - 15x - 12x + 180 = 0$

$x(x - 15) - 12(x - 15) = 0$

$(x - 15)(x - 12) = 0$

$x = +15, +12$

From II,

$y^2 - 25y + 126 = 0$

$y^2 - 18y - 7y + 126 = 0$

$y(y - 18) - 7(y - 18) = 0$

$(y - 18)(y - 7) = 0$

$y = +18, +7$

x	relation	Y
+15	<	+18
+15	>	+7
+12	<	+18
+12	>	+7

So, no relationship can be established between x and y.

Hence, option D

40. Questions

Answer: C

From I,

$x^2 + 36x + 320 = 0$

$x^2 + 16x + 20x + 320 = 0$

$x(x + 16) + 20(x + 16) = 0$

$(x + 16)(x + 20) = 0$

$x = -16, -20$

From II,

$y^2 - 5y - 336 = 0$

$y^2 - 21y + 16y - 336 = 0$

$y(y - 21) + 16(y - 21) = 0$

$(y - 21)(y + 16) = 0$

$y = +21, -16$

x	relation	Y
-16	<	+21
-16	=	-16
-20	<	+21
-20	<	-16

So, $x \leq y$

Hence, option C