1. Questions

Study the following information carefully and answer the questions.

The given missing table chart shows the total number of touristswho visited five different places namely P, Q, R, S and T on Sunday and also given the percentage by which the number of domestic tourists who visited these five places is more than the number of foreign tourists who visited these five places.

Total number of tourists visited = Number of domestic tourists visited + Number of foreign tourists visited

Place	The total number of tourists visited	% by which the number of domestic tourists visited is more than that of foreign tourists
P	1200	66.66%
Q	750	-
R	-	50%
S	640	-
T	-	100%

Note: The total number of domestic tourists who visited R and T together is 1270 and the total number of foreign touristswho visited R and T together is 740.

If the number of domestic tourists who visited S is 50% of the total number of tourists visited T and the ratio of the number of domestic tourists who visited P to Q is 5:4, then find the sum of the number of foreign tourists who visited Q and S.

a. 350

b. 400

c. 240

d. 190

e. 310

2. Questions

Out of the total number of tourists who visited T, 75% of them are males and the number of domestic female tourists who visited T is 40 more than the number of female foreign tourists who visited T. The number of domestic male tourists who visited T is what percentage of the number of foreign tourists who visited P?

a. 111(1/9)

b. 87(1/2)

c. 66(2/3)

d. 20(1/5)

e. 101(1/3)

3. Questions

Find the difference between the total number of tourists who visited R and the number of foreign tourists visited P.

a. 340

b. 600

c. 420

d. 500

e. 250

4. Questions

The average number of foreign tourists who visited P, Q and R is 340. If the number of foreign tourists who visited A is (M-100)/2 and the total number of (domestic + foreign) tourists who visited A is (M+50) and the ratio of the number of domestic tourists who visited Q to A is 6:5, then find the value of M.

a. 750

b. 1050

c. 800

d. 630

e. 910

5. Questions

If the totalnumber of (domestic + foreign) tourists who visited B is 2.5 times the number of foreign tourists who visited R and the number of foreign tourists who visited B is 4/5th of the number of domestic tourists visited P, then find the number of domestic tourists who visited B.

a. 480

b. 360

c. 260

d. 450

e. 500

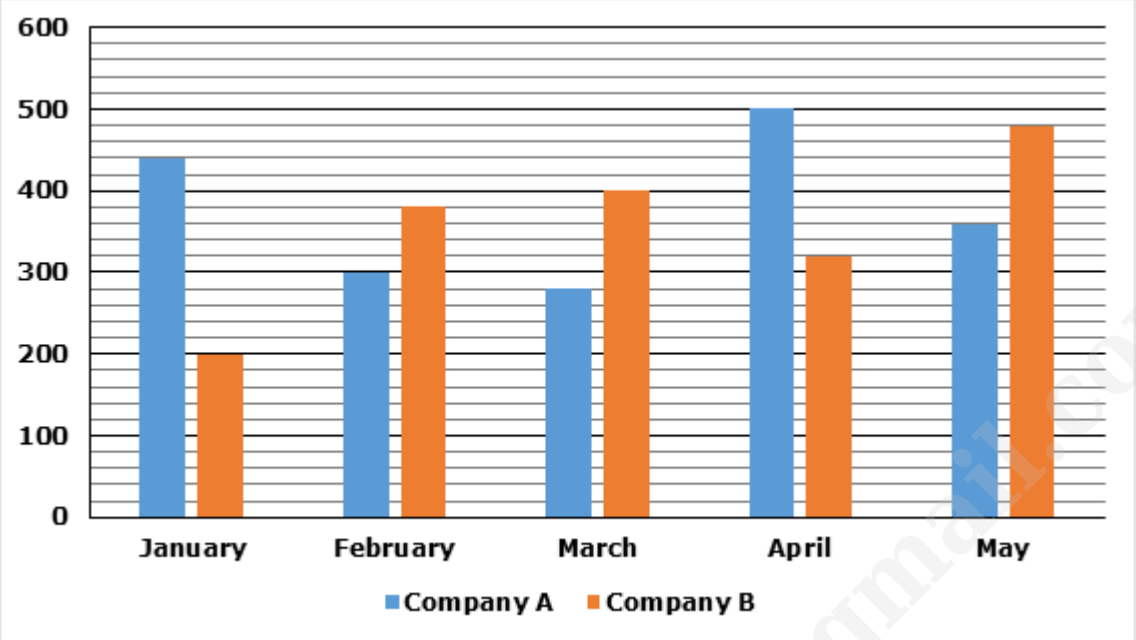
6. Questions

Study the following information carefully and answer the questions.

The given bar graph shows the total number of books printed in five different months i.e. January,

February, March, April and May bytwo different companies namely A and B.

Note: Total number of books printed = Number of English books printed + Number of French books printed



If the number of English books printed by A in June is 75% of the total number of books printed by A in January and the total number of English books and French books printed by A in June is (M+90) and 0.5M respectively, then find the ratio of the total number of books printed by A in February to June.

a. 5:7

b. 3:8

c. 15:19

d. 12:11

e. 2:3

7. Questions

Out of the total number of books printed by B in February and May, 40% and 62.5% are English books respectively and the remaining are French books. If the sum of the number of French books printed by B in January, February and May is 518, then find the number of English books printed by B in January.

a. 110

b. 90

c. 140

d. 75

e. 100

8. Questions

The total number of books printed by B in March is what percentage of the total number of books printed by A in March and May together?

a. 91(1/5)

b. 62(1/2)

c. 33(1/3)

d. 45(5/11)

e. 37(1/2)

9. Questions

In April, if the ratio of the number of English books printed by A to B is 5:2 and the number of French books printed by both A and B are equal. Find the difference between the number of English books printed by A and B in April.

a. 110

b. 150

c. 180

d. 100

e. 200

10. Questions

If the total number of books (English + French) printed by C in January is 110% more than that of B in the same month and the number of English books printed by C in January is 4/9th of the total number of books printed by A in May, then find the ratio of the number of English to French books printed by C in January.

a. 11:10

b. 9:13

c. 4:9

d. 8:13

e. 7:5

11. Questions

Study the following information carefully and answer the questions.

Three persons namely Priyanka, Kareena and Aishwarya invested a certain amount in three different schemes i.e. LIC, NPS and ELF in 2018. The amount invested by Kareena in LIC and ELF is Rs.X and Rs.(X-1000) respectively and the amount invested by Priyanka in ELF is Rs.(0.5X+500). The total amount

invested by Kareena and Aishwarya in all three schemes together is Rs.36000 and Rs.44000 respectively. The amount invested by Priyanka in ELF is 50% less than that of Aishwarya and the sum of the amount invested by Kareena and Aishwarya in ELF is Rs.28000. The ratio of the amount invested by Priyanka to Aishwarya in NPS is 10:9 and the amount invested by Kareena and Aishwarya in NPS is Rs.Y and Rs.2Y respectively. The amount invested by Aishwarya in ELF is 20% more than the amount invested by Priyanka in LIC.

If the average amount invested by Aishwarya and Ram in LIC is Rs.Z and the ratio of the amount invested by Kareena to Ram in LIC is 14:19, then find the difference between the amount invested by Ram in LIC and the amount invested by Kareena in ELF.

a. (Z-8000)
b. (X/3)
c. 0.5Y
d. (Z-Y)
e. None of these

12. Questions

The amount invested by Aishwarya in LIC is what percentage less than the amount invested by Priyanka in NPS?

a. 70
b. 45
c. 20
d. 55
e. 60

13. Questions

If the amount invested by Samantha in LIC is $1/5^{th}$ of the total amount invested by Priyanka in all three schemes together and the ratio of the amount invested by Kareena to Samantha in ELF is 26:11 and the amount invested by Samantha in NPS is 75% of the amount invested by Aishwarya in that scheme, then find the total amount invested by Samantha in all three schemes together.

a. Rs.23000
b. Rs.38000
c. Rs.40000
d. Rs.33000
e. Rs.27000

14. Questions

If the amount invested by Priyanka in ELF in 2019 is Rs.Y more than the previous year and the ratio of the amount invested by Priyanka in LIC in 2018 to 2019 is 25:21 and the total amount invested by Priyanka in all three schemes together in 2019 is Rs.(3X-1500), then find the amount invested by Priyanka in NPS in 2019.

a. Rs.15000

b. Rs.10000

c. Rs.13500

d. Rs.19500

e. Rs.10500

15. Questions

Find the ratio of the total amount invested by Priyanka in LIC and ELF together to the amount invested by Aishwarya in ELF.

a. 4:3

b. 2:1

c. 7:5

d. 8:9

e. 3:2

16. Questions

The pass mark in an examination is 40%. Mohan secured x% marks and he failed by 15 marks and Rohan secured by (x+30)% marks and his marks are 75 more than the pass marks. Find the value of x.

a. 20

b. 15

c. 30

d. 25

e. 35

17. Questions

Pipes A and B alone can fill the tank in T minutes and 26 minutes respectively and pipe C alone can empty the tank in 2T minutes. If the time taken by pipes B and C together to fill the tank is equal to the time taken by pipe A alone to fill the tank, then find the time taken by pipe C alone to empty the tank.

a. 52 minutes

b. 65 minutes

c. 78 minutes

d. 26 minutes

e. 39 minutes

18. Questions

Train M crosses train N running in opposite direction in 17.5 seconds and the length of train M is 204 m. The speed of trains M and N is x m/s and (x-6) m/s respectively. Find the time taken by train N to cross a platform of length 154 m, if the ratio of the length of train N to train M is 143:102.

a. 40 seconds

b. 25 seconds

c. 32 seconds

d. 28 seconds

e. 30 seconds

19. Questions

A vessel contains 135 liters of a mixture of milk and water in the ratio of 7:2. If X liters of mixture is taken out and Y liters of water is added to the mixture, then the amount of milk in the resultant mixture is 30 liters more than that of water. Find the value of Y, if X liters is equal to 20% of the initial mixture).

a. 22

b. 15

c. 30

d. 18

e. 20

20. Questions

The ratio of the perimeter of the rectangle to the square is 5:x and the length and breadth of the rectangle is (x+4) cm and x cm respectively. Find the area of the square if the area of the rectangle is 96 cm^2.

a. 144 cm^2

b. 64 cm^2

c. 324 cm^2

d. 256 cm^2

e. 400 cm^2

21. Questions

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

1257.02 - √1090 + 614.76 – 822.58 = $2^?$ * 126.90

a. 1

b. 2

c. 4

d. 5

e. 3

22. Questions

24.8 * (5.9 * √145 - ?) ÷ 10.8 = 139.9 – 15.32

a. 32

b. 17

c. 25

d. 40

e. 51

23. Questions

(4049.9 ÷ 18.4) – (123.12 * √?) = 315.24 – 581.78

a. 13

b. 20

c. 16

d. 31

e. 14

24. Questions

11.8^3–32.3% of 249.9 - ? = 15.2 * √3845

a. 718

b. 546

c. 930

d. 692

e. 445

25. Questions

(812.3 ÷ √50 ÷ 29.32) + 2 *? = 266.15

a. 144

b. 125

c. 103

d. 131

e. 178

26. Questions

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

105, ?, 346, 411, 419, 428

a. 322

b. 275

c. 194

d. 302

e. 248

27. Questions

25, ?, 54, 165, 664, 3325

a. 13.5

b. 25

c. 17

d. 10.5

e. 26

28. Questions

1728, 172.8, 21.6, 3.6, 0.9, ?

a. 3

b. 0.5

c. 0.45

d. 0.3

e. 0.18

29. Questions

218, 231, 192, 257, ?, 283

a. 195

b. 166

c. 183

d. 177

e. 158

30. Questions

?, 392, 428, 494, 605, 776

a. 356

b. 390

c. 383

d. 371

e. 338

31. Questions

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

I). $x^2 - 4x - 117 = 0$

II). $y^2 + 25y + 154 = 0$

a. $x > y$

b. $x \geq y$

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

d. $x < y$

e. $x \leq y$

32. Questions

I). $x^2 + 19x + 78 = 0$

II). $5y^2 + 41y + 66 = 0$

a. $x > y$

b. $x \geq y$

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

d. $x < y$

e. $x \leq y$

33. Questions

I). $x^4 = 6561$

II). $y^2 + 11y - 126 = 0$

a. $x > y$

b. $x \geq y$

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

d. $x < y$

e. $x \leq y$

34. Questions

I). $4x^2 - 29x + 51 = 0$

II). $3y^2 - 34y + 95 = 0$

a. $x > y$

b. $x \geq y$

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

d. $x < y$

e. $x \leq y$

35. Questions

I). $2x^2 - 23x + 63 = 0$

II). $2y^2 - 3y - 35 = 0$

a. $x > y$

b. $x \geq y$

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

d. $x < y$

e. $x \leq y$

36. Questions

Find out the wrong number in the following number series.

9.5, 11.2, 14.6, 19.7, 21.5, 35

a. 9.5

b. 11.2

c. 19.7

d. 21.5

e. 35

37. Questions

17, 34, 51, 255, 1785, 16065

a. 255

b. 51

c. 34

d. 1785

e. None of these

38. Questions

739, 672, 601, 534, 473, 414

a. 414

b. 739

c. 672

d. 534

e. 601

39. Questions

91, 122, 168, 231, 313, 401

a. 401

b. 313

c. 168

d. 122

e. 91

40. Questions

31, 16, 33, 67, 135, 271

a. 16

b. 31

c. 67

d. 135

e. 271

41. Questions

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

(5/12 + 1/6 – 3/8) * ? = 107.5 – 70

a. 151.5

b. 135

c. 180

d. 117.2

e. 166(2/3)

42. Questions

3(4/17)% of 3400 + $?^2$ = √36 * 15 + 6^3

a. 14

b. 20

c. 15

d. 32

e. 19

43. Questions

√(14400 ÷ 25) * ? ÷ 0.5 = 160 * 4.5

a. 36

b. 15

c. 24

d. 40

e. 18

44. Questions

11/25 + 3/15 + ?= 1(1/5) + 21/25

a. 7/25

b. 9/5

c. 1(2/5)

d. 1/25

e. 1(3/25)

45. Questions

? + (87 ÷ 6) – 21^2 = 17.75 –149 - √10000

a. 201.50

b. 89.75

c. 110.50

d. 195.25

e. 157.5

Explanations:

1. Questions

The ratio of the number of domestic to foreign tourists who visited P = 166.66:100 = 5:3

The number of domestic tourists who visited P = 1200 * 5/(5 + 3) = 750

The number of foreign tourists visited P = 1200 – 750 = 450

The ratio of the number of domestic to foreign tourists who visited R = 150:100 = 3:2

Let the number of domestic and foreign touristswho visited R be 3x and 2x respectively.

The ratio of the number of domestic to foreign tourists who visited T = 200:100 = 2:1

Let the number of domestic and foreign tourists who visited T be 2y and 1y respectively.

3x + 2y = 1270 ---(1)

2x + 1y = 740 ---(2)

From equations (1) and (2),

x = 210

y = 320

The number of domestic tourists who visited R = 3 * 210 = 630

The number of foreign tourists who visited R = 2 * 210 = 420

The total number of tourists who visited R = 630 + 420 = 1050

The number of domestic tourists who visited T = 2 * 320 = 640

The number of foreign tourists who visited T = 320

The total number of tourists who visited T = 640 + 320 = 960

Place	The total number of tourists visited	The number of domestic tourists visited	The number of foreign tourists visited
P	1200	750	450
Q	750	-	-
R	1050	630	420
S	640	-	-
T	960	640	320

Answer: E

The number of domestic tourists who visited S = 960 * 50/100 = 480

The number of foreign tourists who visited S = 640 – 480 = 160

The number of domestic tourists who visited Q = 750 * 4/5 = 600

The number of foreign tourists who visited Q = 750 – 600 = 150

Required sum = 160 + 150 = 310

2. Questions

The ratio of the number of domestic to foreign tourists who visited P = 166.66:100 = 5:3

The number of domestic tourists who visited P = 1200 * 5/(5 + 3) = 750

The number of foreign tourists visited P = 1200 – 750 = 450

The ratio of the number of domestic to foreign tourists who visited R = 150:100 = 3:2

Let the number of domestic and foreign touristswho visited R be 3x and 2x respectively.

The ratio of the number of domestic to foreign tourists who visited T = 200:100 = 2:1

Let the number of domestic and foreign tourists who visited T be 2y and 1y respectively.

3x + 2y = 1270 ---(1)

2x + 1y = 740 ---(2)

From equations (1) and (2),

x = 210

y = 320

The number of domestic tourists who visited R = 3 * 210 = 630

The number of foreign tourists who visited R = 2 * 210 = 420

The total number of tourists who visited R = 630 + 420 = 1050

The number of domestic tourists who visited T = 2 * 320 = 640

The number of foreign tourists who visited T = 320

The total number of tourists who visited T = 640 + 320 = 960

Place	The total number of tourists visited	The number of domestic tourists visited	The number of foreign tourists visited
P	1200	750	450
Q	750	-	-
R	1050	630	420
S	640	-	-
T	960	640	320

Answer: A

The total number of female tourists who visited T = 960 * (100 – 75)/100 = 240

The number of domestic female tourists who visited T = (240 + 40)/2 = 140

The number of domestic male tourists who visited T = 640 – 140 = 500

Required % = 500/450 * 100 = 111(1/9)

3. Questions

The ratio of the number of domestic to foreign tourists who visited P = 166.66:100 = 5:3

The number of domestic tourists who visited P = 1200 * 5/(5 + 3) = 750

The number of foreign tourists visited P = 1200 – 750 = 450

The ratio of the number of domestic to foreign tourists who visited R = 150:100 = 3:2

Let the number of domestic and foreign touristswho visited R be 3x and 2x respectively.

The ratio of the number of domestic to foreign tourists who visited T = 200:100 = 2:1

Let the number of domestic and foreign tourists who visited T be 2y and 1y respectively.

3x + 2y = 1270 ---(1)

2x + 1y = 740 ---(2)

From equations (1) and (2),

x = 210

y = 320

The number of domestic tourists who visited R = 3 * 210 = 630

The number of foreign tourists who visited R = 2 * 210 = 420

The total number of tourists who visited R = 630 + 420 = 1050

The number of domestic tourists who visited T = 2 * 320 = 640

The number of foreign tourists who visited T = 320

The total number of tourists who visited T = 640 + 320 = 960

Place	The total number of tourists visited	The number of domestic tourists visited	The number of foreign tourists visited
P	1200	750	450
Q	750	-	-
R	1050	630	420
S	640	-	-
T	960	640	320

Answer: B

Required difference = 1050 – 450 = 600

4. Questions

The ratio of the number of domestic to foreign tourists who visited P = 166.66:100 = 5:3

The number of domestic tourists who visited P = 1200 * 5/(5 + 3) = 750

The number of foreign tourists visited P = 1200 – 750 = 450

The ratio of the number of domestic to foreign tourists who visited R = 150:100 = 3:2

Let the number of domestic and foreign touristswho visited R be 3x and 2x respectively.

The ratio of the number of domestic to foreign tourists who visited T = 200:100 = 2:1

Let the number of domestic and foreign tourists who visited T be 2y and 1y respectively.

3x + 2y = 1270 ---(1)

2x + 1y = 740 ---(2)

From equations (1) and (2),

x = 210

y = 320

The number of domestic tourists who visited R = 3 * 210 = 630

The number of foreign tourists who visited R = 2 * 210 = 420

The total number of tourists who visited R = 630 + 420 = 1050

The number of domestic tourists who visited T = 2 * 320 = 640

The number of foreign tourists who visited T = 320

The total number of tourists who visited T = 640 + 320 = 960

Place	The total number of tourists visited	The number of domestic tourists visited	The number of foreign tourists visited
P	1200	750	450
Q	750	-	-
R	1050	630	420
S	640	-	-
T	960	640	320

Answer: C

The number of foreign tourist who visited Q = 340 * 3 – (450 + 420) = 150

The number of domestic tourists who visited Q = 750 – 150 = 600

The number of domestic tourists who visited A = 600 * 5/6 = 500

(M + 50) – (M - 100)/2 = 500

2(M + 50) – (M - 100) = 500 * 2

M = 1000 – 200 = 800

5. Questions

The ratio of the number of domestic to foreign tourists who visited P = 166.66:100 = 5:3

The number of domestic tourists who visited P = 1200 * 5/(5 + 3) = 750

The number of foreign tourists visited P = 1200 – 750 = 450

The ratio of the number of domestic to foreign tourists who visited R = 150:100 = 3:2

Let the number of domestic and foreign touristswho visited R be 3x and 2x respectively.

The ratio of the number of domestic to foreign tourists who visited T = 200:100 = 2:1

Let the number of domestic and foreign tourists who visited T be 2y and 1y respectively.

3x + 2y = 1270 ---(1)

2x + 1y = 740 ---(2)

From equations (1) and (2),

x = 210

y = 320

The number of domestic tourists who visited R = 3 * 210 = 630

The number of foreign tourists who visited R = 2 * 210 = 420

The total number of tourists who visited R = 630 + 420 = 1050

The number of domestic tourists who visited T = 2 * 320 = 640

The number of foreign tourists who visited T = 320

The total number of tourists who visited T = 640 + 320 = 960

Place	The total number of tourists visited	The number of domestic tourists visited	The number of foreign tourists visited
P	1200	750	450
Q	750	-	-
R	1050	630	420
S	640	-	-
T	960	640	320

Answer: D

The total number of tourists who visited B = 420 * 2.5 = 1050

The number of foreign tourists who visited B = 750 * 4/5 = 600

The number of domestic tourists who visited B = 1050 – 600 = 450

6. Questions

Answer: E

The number of English books printed by Company A in June = 440 * 75/100 = 330

M + 90 = 330

M = 240

The number of French books printed by Company A in June = 0.5 * 240 = 120

The total number of books printed by Company A in June = 330 + 120 = 450

Required ratio = 300:450 = 2:3

7. Questions

Answer: B

The number of French books printed by Company B in February = 380 * (100 – 40)/100 = 228

The number of French books printed by Company B in May = 480 * (100 – 62.5)/100 = 180

The number of French books printed by Company B in January = 518 – (228 + 180) = 110

The number of English books printed by Company B in January = 200 – 110 = 90

8. Questions

Answer: B

The total number of books printed by Company A in March and May together = 280 + 360 = 640

Required % = 400/640 * 100 = 62(1/2)

9. Questions

Answer: C

Let the number of English books printed by Company A and B in April be 5x and 2x respectively.

Let the number of French books printed by Company A and B in April be y each.

5x + y = 500 ---(1)

2x + y = 320 ---(2)

From equations (1) and (2),

x = 60

The difference between the number of English books printed by A and B in April = (5 – 2) * 60 = 3 * 60 = 180

10. Questions

Answer: D

The total number of books printed by Company C in January = 200 * 210/100 = 420

The number of English books printed by Company C in January = 360 * 4/9 = 160

The number of French books printed by Company C in January = 420 – 160 = 260

Required ratio = 160:260 = 8:13

11. Questions

The amount invested by Aishwarya in ELF = (0.5X + 500) * 100/50 = Rs.(X + 1000)

(X + 1000) + (X – 1000) = 28000

X = 14000

The amount invested by Priyanka in ELF = 0.5 * 14000 + 500 = Rs.7500

The amount invested by Kareena in ELF = 14000 – 1000 = Rs.13000

The amount invested by Aishwarya in ELF = 14000 + 1000 = Rs.15000

The amount invested by Kareena in LIC = Rs.14000

The amount invested by Kareena in NPS = 36000 – (14000 + 13000) = Rs.9000

The amount invested by Aishwarya in NPS = 9000 * 2 = Rs.18000

The amount invested by Priyanka in NPS = 18000 * 10/9 = Rs.20000

The amount invested by Aishwarya in LIC = 44000 – (18000 + 15000) = Rs.11000

The amount invested by Priyanka in LIC = 15000 * 100/120 = Rs.12500

Name	The amount invested in LIC(in Rs.)	The amount invested in NPS (in Rs.)	The amount invested in ELF (in Rs.)
Priyanka	12500	20000	7500
Kareena	14000	9000	13000
Aishwarya	11000	18000	15000

Answer: D

The amount invested by Ram in LIC = 14000 * 19/14 = Rs.19000

Z = (11000 + 19000)/2 = 15000

The difference between the amount invested by Ram in LIC and the amount invested by Kareena in ELF = 19000 – 13000 = Rs.6000

Required value = Z – Y (15000 – 9000 = 6000)

12. Questions

The amount invested by Aishwarya in ELF = (0.5X + 500) * 100/50 = Rs.(X + 1000)

(X + 1000) + (X – 1000) = 28000

X = 14000

The amount invested by Priyanka in ELF = 0.5 * 14000 + 500 = Rs.7500

The amount invested by Kareena in ELF = 14000 – 1000 = Rs.13000

The amount invested by Aishwarya in ELF = 14000 + 1000 = Rs.15000

The amount invested by Kareena in LIC = Rs.14000

The amount invested by Kareena in NPS = 36000 – (14000 + 13000) = Rs.9000

The amount invested by Aishwarya in NPS = 9000 * 2 = Rs.18000

The amount invested by Priyanka in NPS = 18000 * 10/9 = Rs.20000

The amount invested by Aishwarya in LIC = 44000 – (18000 + 15000) = Rs.11000

The amount invested by Priyanka in LIC = 15000 * 100/120 = Rs.12500

Name	The amount invested in LIC(in Rs.)	The amount invested in NPS (in Rs.)	The amount invested in ELF (in Rs.)
Priyanka	12500	20000	7500
Kareena	14000	9000	13000
Aishwarya	11000	18000	15000

Answer: B

Required percentage = (11000 – 20000)/20000 * 100 = 9000/200 = 45%

13. Questions

The amount invested by Aishwarya in ELF = (0.5X + 500) * 100/50 = Rs.(X + 1000)

(X + 1000) + (X – 1000) = 28000

X = 14000

The amount invested by Priyanka in ELF = 0.5 * 14000 + 500 = Rs.7500

The amount invested by Kareena in ELF = 14000 – 1000 = Rs.13000

The amount invested by Aishwarya in ELF = 14000 + 1000 = Rs.15000

The amount invested by Kareena in LIC = Rs.14000

The amount invested by Kareena in NPS = 36000 – (14000 + 13000) = Rs.9000

The amount invested by Aishwarya in NPS = 9000 * 2 = Rs.18000

The amount invested by Priyanka in NPS = 18000 * 10/9 = Rs.20000

The amount invested by Aishwarya in LIC = 44000 – (18000 + 15000) = Rs.11000

The amount invested by Priyanka in LIC = 15000 * 100/120 = Rs.12500

Name	The amount invested in LIC(in Rs.)	The amount invested in NPS (in Rs.)	The amount invested in ELF (in Rs.)
Priyanka	12500	20000	7500
Kareena	14000	9000	13000
Aishwarya	11000	18000	15000

Answer: E

The total amount invested by Priyanka in three schemes together = 12500 + 20000 + 7500 = Rs.40000

The amount invested by Samantha in LIC = 40000 * 1/5 = Rs.8000

The amount invested by Samantha in ELF = 13000 * 11/26 = Rs.5500

The amount invested by Samantha in NPS = 18000 * 75/100 = Rs.13500

The total amount invested by Samantha in all three schemes together = 8000 + 13500 + 5500 = Rs.27000

14. Questions

The amount invested by Aishwarya in ELF = (0.5X + 500) * 100/50 = Rs.(X + 1000)

(X + 1000) + (X – 1000) = 28000

X = 14000

The amount invested by Priyanka in ELF = 0.5 * 14000 + 500 = Rs.7500

The amount invested by Kareena in ELF = 14000 – 1000 = Rs.13000

The amount invested by Aishwarya in ELF = 14000 + 1000 = Rs.15000

The amount invested by Kareena in LIC = Rs.14000

The amount invested by Kareena in NPS = 36000 – (14000 + 13000) = Rs.9000

The amount invested by Aishwarya in NPS = 9000 * 2 = Rs.18000

The amount invested by Priyanka in NPS = 18000 * 10/9 = Rs.20000

The amount invested by Aishwarya in LIC = 44000 – (18000 + 15000) = Rs.11000

The amount invested by Priyanka in LIC = 15000 * 100/120 = Rs.12500

Name	The amount invested in LIC(in Rs.)	The amount invested in NPS (in Rs.)	The amount invested in ELF (in Rs.)
Priyanka	12500	20000	7500
Kareena	14000	9000	13000
Aishwarya	11000	18000	15000

Answer: C

The amount invested by Priyanka in ELF in 2019 = 7500 + 9000 = Rs.16500

The amount invested by Priyanka in LIC in 2019 = 12500 * 21/25 = Rs.10500

The total amount invested by Priyanka in all three schemes together in 2019 = 3 * 14000 – 1500 = Rs.40500

The amount invested by Priyanka in NPS in 2019 = 40500 – (10500 + 16500) = Rs.13500

15. Questions

The amount invested by Aishwarya in ELF = (0.5X + 500) * 100/50 = Rs.(X + 1000)

(X + 1000) + (X – 1000) = 28000

X = 14000

The amount invested by Priyanka in ELF = 0.5 * 14000 + 500 = Rs.7500

The amount invested by Kareena in ELF = 14000 – 1000 = Rs.13000

The amount invested by Aishwarya in ELF = 14000 + 1000 = Rs.15000

The amount invested by Kareena in LIC = Rs.14000

The amount invested by Kareena in NPS = 36000 – (14000 + 13000) = Rs.9000

The amount invested by Aishwarya in NPS = 9000 * 2 = Rs.18000

The amount invested by Priyanka in NPS = 18000 * 10/9 = Rs.20000

The amount invested by Aishwarya in LIC = 44000 – (18000 + 15000) = Rs.11000

The amount invested by Priyanka in LIC = 15000 * 100/120 = Rs.12500

Name	The amount invested in LIC(in Rs.)	The amount invested in NPS (in Rs.)	The amount invested in ELF (in Rs.)
Priyanka	12500	20000	7500
Kareena	14000	9000	13000
Aishwarya	11000	18000	15000

Answer: A

The total amount invested by Priyanka in LIC and ELF together = 12500 + 7500 = Rs.20000

Required ratio = 20000:15000 = 4:3

16. Questions

Answer: E

Let the maximum marks for the examination be a.

a * (x + 30)/100 – 75 = a * x/100 + 15

ax + 30a – 7500 = ax + 1500

a = 9000/30 = 300

The pass mark of the examination = 300 * 40/100 = 120

x = (120 – 15)/300 * 100 = 105/3 = 35

17. Questions

Answer: C

1/26 – 1/2T = 1/T

(1 + 2)/2T = 1/26

3/2T = 1/26

T = 39 minutes

The time taken by pipe C alone to empty the tank = 2 * 39 = 78 minutes

18. Questions

Answer: A

The length of train N = 204 * 143/102 = 286 m

204 + 286 = (x + x – 6) * 17.5

2x = 490/17.5 + 6 = 34

x = 17

The speed of train N = 17 – 6 = 11 m/s

Required time taken = (286 + 154)/11 = 440/11 = 40 seconds

19. Questions

Answer: C

Initial quantity of milk = 135 * 7/(7 + 2) = 135 * 7/9 = 105 liters

Initial quantity of Water = 135 – 105 = 30 liters

X liters = 135 * 20/100 = 27 liters

(105 – 27 * 7/9) – (30 – 27 * 2/9 + Y) = 30

105 – 21 – (30 – 6 + Y) = 30

Y = 84 – 24 - 30 = 30

20. Questions

Answer: D

(x + 4) * x = 96

$x^2 + 4x – 96 = 0$

$x^2 + 12x - 8x – 96 = 0$

x(x + 12) – 8(x + 12) = 0

x = + 8, - 12

x = 8

Length of the rectangle = 8 + 4 = 12 cm

Breadth of the rectangle = 8 cm

The perimeter of the rectangle = 2 * (12 + 8) = 40 cm

The perimeter of the square = 40 * 8/5 = 64 cm

The side of the square = 64/4 = 16 cm

The area of the square = 16 * 16 = 256 cm^2

21. Questions

Answer: E

$1257 - \sqrt{1089} + 615 – 823 = 2^? * 127$

$1049 – 33 = 2^{?*} 127$

$2^? = 1016/127 = 8 = 2^3$

? = 3

22. Questions

Answer: B

$25 * (6 * \sqrt{144} - ?) \div 11 = 140 - 15$

$72 - ? = 125 * 11/25$

$? = 72 - 55 = 17$

23. Questions

Answer: C

$(4050 \div 18) - (123 * \sqrt{?}) = 315 - 582$

$225 - (123 * \sqrt{?}) = -267$

$\sqrt{?} = 492/123 = 4$

$? = 16$

24. Questions

Answer: A

$12^3 - 32\% * 250 - ? = 15 * \sqrt{3844}$

$1728 - 32 * 250/100 - ? = 15 * 62$

$? = 1648 - 930 = 718$

25. Questions

Answer: D

$(812 \div \sqrt{49} \div 29) + 2 *? = 266$

$4 + 2* ? = 266$

$? = 262/2 = 131$

26. Questions

Answer: A

$105 + (6^3 + 1) =$ **322**

$322 + (5^2 - 1) = 346$

$346 + (4^3 + 1) = 411$

$411 + (3^2 - 1) = 419$

$419 + (2^3 + 1) = 428$

27. Questions

Answer: E

$25 * 1 + 1 =$ **26**

$26 * 2 + 2 = 54$

54 * 3 + 3 = 165

165 * 4 + 4 = 664

664 * 5 + 5 = 3325

28. Questions

Answer: C

1728 ÷ 10 = 172.8

172.8 ÷ 8 = 21.6

21.6 ÷ 6 = 3.6

3.6 ÷ 4 = 0.9

0.9 ÷ 2 = **0.45**

29. Questions

Answer: B

218 + 13 * 1 = 231

231 – 13 * 3 = 192

192 + 13 * 5 = 257

257 – 13 * 7 = **166**

166 + 13 * 9 = 283

30. Questions

Answer: D

371 392 428 494 605 776

+21 +36 +66 +111 +171

+15 +30 +45 +60

31. Questions

Answer: A

$x^2 – 4x – 117 = 0$

$x^2 – 13x + 9x – 117 = 0$

$x(x – 13) + 9(x – 13) = 0$

$x = + 13, - 9$

$y^2 + 25y + 154 = 0$

$y^2 + 14y + 11y + 154 = 0$

$y(y + 14) + 11(y + 14) = 0$

$y = - 14, - 11$

Hence, $x > y$

32. Questions

Answer: E

$x^2 + 19x + 78 = 0$

$x^2 + 13x + 6x + 78 = 0$

$x(x + 13) + 6(x + 13) = 0$

$x = - 13, - 6$

$5y^2 + 41y + 66 = 0$

$5y^2 + 30y + 11y + 66 = 0$

$5y(y + 6) + 11(y + 6) = 0$

$y = - 6, - 11/5 = - 6, - 2.2$

Hence, $x \leq y$

33. Questions

Answer: C

$x^4 = 6561 = 9^4$

$x = - 9, +9$

$y^2 + 11y – 126 = 0$

$y^2 + 18y – 7y – 126 = 0$

$y(y + 18) – 7(y + 18) = 0$

$y = - 18, + 7$

Hence, relationship can't be determined

34. Questions

Answer: D

$4x^2 – 29x + 51 = 0$

$4x^2 – 12x – 17x + 51 = 0$

$4x(x – 3) – 17(x – 3) = 0$

$x = + 3, +17/4 = + 3, + 4.25$

$3y^2 - 34y + 95 = 0$

$3y^2 - 15y - 19y + 95 = 0$

$3y(y - 5) - 19(y - 5) = 0$

$y = +5, +19/3 = +5, +6.33$

Hence, $x < y$

35. Questions

Answer: C

$2x^2 - 23x + 63 = 0$

$2x^2 - 14x - 9x + 63 = 0$

$2x(x - 7) - 9(x - 7) = 0$

$x = +7, +9/2 = +7, +4.5$

$2y^2 - 3y - 35 = 0$

$2y^2 - 10y + 7y - 35 = 0$

$2y(y - 5) + 7(y - 5) = 0$

$y = +5, -7/2$

The relationship can't be determined.

36. Questions

Answer: D

$9.5 + 1.7 = 11.2$

$11.2 + 3.4 = 14.6$

$14.6 + 5.1 = 19.7$

$19.7 + 6.8 = \mathbf{26.5}$

$26.5 + 8.5 = 35$

37. Questions

Answer: C

$17 * 1 = \mathbf{17}$

$17 * 3 = 51$

$51 * 5 = 255$

$255 * 7 = 1785$

$1785 * 9 = 16065$

38. Questions

Answer: B

745 – 73 = 672

672 – 71 = 601

601 – 67 = 534

534 – 61 = 473

473 – 59 = 414

39. Questions

Answer: A

91 122 168 231 313 **416**

+31 +46 +63 +82 +103

+15 +17 +19 +21

40. Questions

Answer: B

7.5 * 2 + 1 = 16

16 * 2 + 1 = 33

33 * 2 + 1 = 67

67 * 2 + 1 = 135

135 * 2 + 1 = 271

41. Questions

Answer: C

(5/12 + 1/6 – 3/8) * ? = 107.5 – 70

(10 + 4 – 9)/24 * ? = 37.5

? = 37.5 * 24/5 = 180

42. Questions

Answer: A

$3(4/17)\%$ of $3400 + ?^2 = \sqrt{36} * 15 + 6^3$

$55/17 * 3400/100 + ?^2 = 6 * 15 + 216$

$?^2 = 306 – 110 = 196 = 14^2$

? = 14

43. Questions

Answer: B

$\sqrt{(14400 \div 25)} * ? \div 0.5 = 160 * 4.5$

$120/5 * ?/0.5 = 720$

$? = 720 * 0.5/24 = 15$

44. Questions

Answer: C

$11/25 + 3/15 + ? = 1(1/5) + 21/25$

$1/5 + ? = 6/5 + 21/25 - 11/25$

$? = (30 + 21 - 11 - 5)/25 = 35/25 = 7/5 = 1(2/5)$

45. Questions

Answer: D

$? + (87 \div 6) - 21^2 = 17.75 - 149 - \sqrt{10000}$

$? + 14.5 - 441 = 17.75 - 149 - 100$

$? = 195.25$