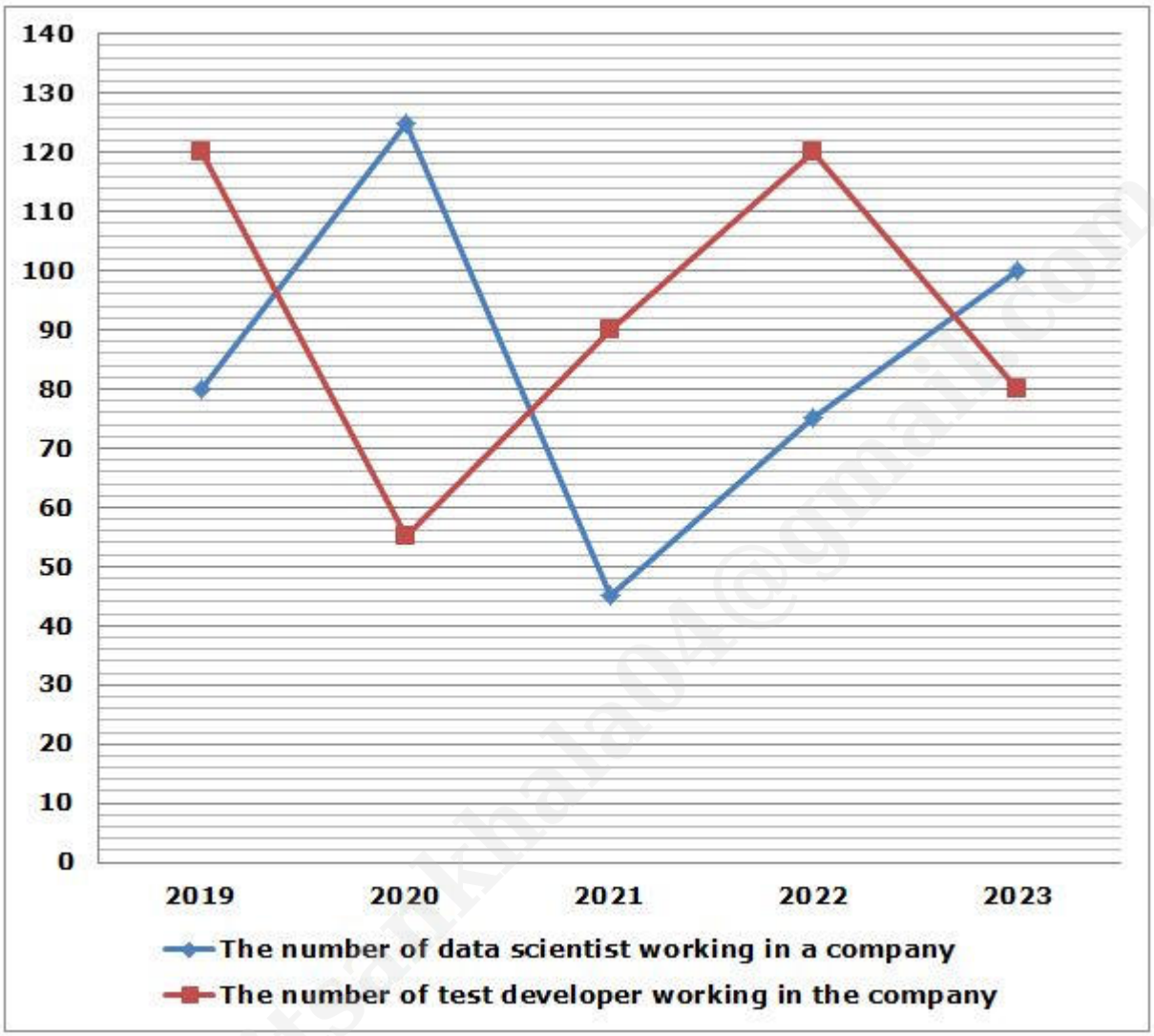
1. Questions

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

The line graph given below shows the number of data scientists and test developers working in a company during five different years i.e. 2019, 2020, 2021, 2022, and 2023.



Find the difference between the average number of data scientists working in 2021 and 2022 and the sum of the number of test developers working in 2020 and 2023.

a. 105

b. 15

c. 75

d. 45

e. 88

2. Questions

The ratio of the total number of employees (data scientists + test developers) working in 2019 to the number of test developers working in 2022 is m:n. If the ratio of the number of male to female test

developers working in 2023 is n:m, then find the number of female test developers working in 2023.

a. 40

b. 48

c. 30

d. 50

e. 45

3. Questions

If 'x' number of data scientists left and (3x – 4) number of test developers joined in 2020, and the ratio of the number of data scientists to test developers in 2020 is now 20:11, then find the value of x.

a. 5

b. 7

c. 14

d. 10

e. 2

4. Questions

If the number of test developers working in 2021 was 25% less than the number of data analysts working, then find the average number of employees (data scientists + test developers + data analysts) working in 2021.

a. 45

b. 85

c. 72

d. 64

e. 54

5. Questions

Out of the total number of employees (data scientists + test developers) working in 2023, 40% were females. If the number of male data scientists working in 2023 was 68, then find the number of female test developers working in 2023.

a. 48

b. 52

c. 42

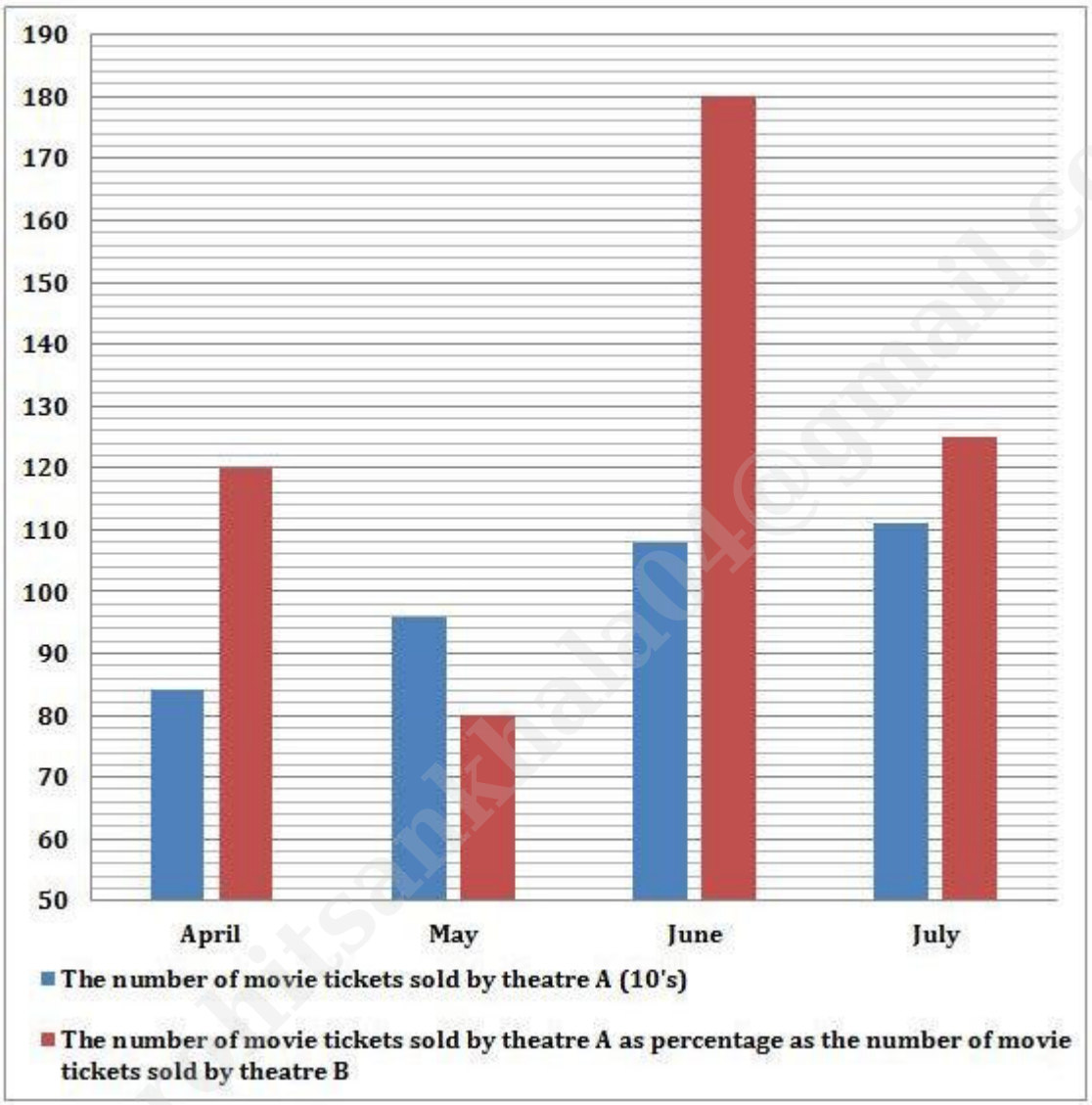
d. 36

e. 40

6. Questions

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

The bar graph given below shows the number of movie tickets sold by theatre A in four different months (April, May, June and July) and the number of movie tickets sold by theatre A as a percentage of the number of movie tickets sold by theatre B in four different months.



If the number of tickets sold by theatre C in July is 20% more than that by theatre A in April, then find the ratio of the number of tickets sold by theatre C in July to that by theatre B in July.

a. 42:37

b. 37:38

c. 42:41

d. 40:37

e. 37:40

7. Questions

If the ratio of the number of Hindi to Tamil movie tickets sold by theatre B in May is 3:5, then find the difference between the number of Tamil movie tickets sold by theatre B in May and the number of tickets sold by theatre B in April.

a. 20

b. 40

c. 50

d. 10

e. 45

8. Questions

If the total number of males who watched the movie in June is 630 and the ratio of the total number of females who watched the movie by theatre A to B in June is 5:2, then find the number of males who watched the movie by theatre B in June.

a. 450

b. 225

c. 425

d. 300

e. 360

9. Questions

The average number of tickets sold by theatre B in all four given months together is equal to the number of tickets sold by theatre A in August. If the number of tickets sold to unsold by theatre A in August is 11:7, then find the number of unsold by theatre A in August.

a. 560

b. 539

c. 574

d. 604

e. 616

10. Questions

The total number of tickets sold by the two given theatres in May is how much percent more than the total number of tickets sold by the two given theatres in July?

a. 12.5%

b. 8.1%

c. 17.5%

d. 37.5%

e. 10%

11. Questions

A container of 180 litres mixture contains milk and water in the ratio of 8:7 respectively. (x + 8) litres of milk and (2x – 16) litres of water are added to the mixture such that the ratio of milk to water becomes 6:5. Find the value of x.

a. 15

b. 8

c. 12

d. 18

e. 16

12. Questions

The average score of Virat after 'x' matches is 48. If he scored an average of 54 runs in the next 10 matches, then his overall average would become 49.2. Find the value of x.

a. 25

b. 30

c. 34

d. 28

e. 40

13. Questions

Riya can complete a journey in 4 hours if she drives her car at 'x' km/hr. If she increases the speed of the car by 16 km/hr, then she can complete the same distance in 1 hour 36 minutes less time. Find the distance travelled by Riya.

a. 96 km

b. 90 km

c. 69 km

d. 106 km

e. 124 km

14. Questions

Ram saves 48% of his monthly income. If his monthly income is increased by 11.2% while his

monthly savings are increased by 45%, then his monthly expenditure decreases by Rs. 520. Find his monthly income originally.

a. Rs. 6400

b. Rs. 5000

c. Rs. 7450

d. Rs. 4480

e. Rs. 3670

15. Questions

The cost price of article B is Rs. 600 more than the cost price of article A. The articles A and B are sold at a 50% profit and 5% profit respectively. If the selling price of articles A and B is the same, then find the cost price of article B.

a. Rs. 2500

b. Rs. 2000

c. Rs. 3000

d. Rs. 1500

e. Rs. 3500

16. Questions

Pipe A alone can fill a cistern in 15 hours. Pipe A and pipe B, when opened together, can fill 75% of the cistern in 'x' hours. Pipe B alone can fill half of the cistern in 11 (1/4) hours. Find the value of x.

a. 6 hours

b. 4 hours 30 minutes

c. 5 hours

d. 6 hours 45 minutes

e. 7 hours 12 minutes

17. Questions

Rani invested Rs. 15000 at a certain rate (p.a.) of compound interest, compounded annually for 2 years. If he received Rs. 5184 as interest after 2 years, then find the rate of interest.

a. 12.5%

b. 10%

c. 15%

d. 17.5%

e. 16%

18. Questions

The surface area of a sphere with a diameter of 21 m is 36 m^2 more than the total surface area of a cube. Find the length of the edge of the cube.

a. 11 m

b. 21 m

c. 15 m

d. 18 m

e. 24 m

19. Questions

Two boats A and B start travelling towards each other from two places, 252 km apart. The speed of boat A and boat B in still water is 13 km/hr and 8 km/hr, respectively. If 'A' proceeds against the stream and 'B' proceeds with the stream, then after how much time will they meet?

a. 8 hours

b. 12 hours

c. 16 hours

d. 10 hours

e. 6 hours

20. Questions

A, B, and C started a business by investing Rs. x, Rs. 12000, and Rs. (x + 2000) respectively. The total profit earned at the end of 3 years was Rs. 11200, out of which B's share was Rs. 350 more than C's share, and C's share was 700 more than A's share. Find the sum of the investments of A and C.

a. Rs. 20000

b. Rs. 12000

c. Rs. 24600

d. Rs. 13800

e. Rs. 17800

21. Questions

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

$\sqrt{961} * 5 + ? = 129 + 83 * \sqrt{9} - 203$

a. 80

b. 50

c. 20

d. 40

e. 90

22. Questions

13% of 150 + 229 – 2800 ÷ 8 =? + 8 * 12

a. -197.5

b. -189.5

c. -115.4

d. -125.6

e. -145.9

23. Questions

10% of ? + 110 % of 60 = √7744 * 5 – 12 * 4

a. 3150

b. 3160

c. 3260

d. 1260

e. 2280

24. Questions

50% of 144 + √4624÷ 2 + ? =135 % of 180

a. 160

b. 163

c. 152

d. 137

e. 171

25. Questions

179 + 321 – 567 + 117 =? + √64 * 4

a. 15

b. 9

c. 18

d. 11

e. 12

26. Questions

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

4.92 % of 539.91 – 48.01% of 450.19 = ?

a. -171

b. -177

c. -189

d. -191

e. -196

27. Questions

16.66% of 191.901 + 71.45% of 272.898 = ?

a. 211

b. 205

c. 233

d. 227

e. 218

28. Questions

120.981 – √530 * 4.989 + 405.912 ÷ √840= ?

a. 10

b. 15

c. 20

d. 25

e. 30

29. Questions

83.33 % of 299.891 + 59.92 % of 105.04= $?^2$ – 31.910 % of 149.91

a. 19

b. 17

c. 15

d. 13

e. 21

30. Questions

(359.911 ÷ 24.15) + 230.04 ÷ 1.91 = ? * √170

a. 8

b. 6

c. 10

d. 12

e. 15

31. Questions

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

333, 332, 324, 297, 233, ?

a. 116

b. 124

c. 108

d. 87

e. 96

32. Questions

148, 130, 116, 106, 100, ?

a. 86

b. 92

c. 98

d. 104

e. 88

33. Questions

5, 6, 10, 33, 128, ?, 3864

a. 650

b. 346

c. 745

d. 542

e. 645

34. Questions

16, 40, 140, 630, ?, 22522.5

a. 3485

b. 3380

c. 3930

d. 3465

e. 3845

35. Questions

24, ?, 18, 45, 157.5, 708.75

a. 20

b. 28

c. 36

d. 12

e. 18

36. Questions

Find out the wrong number in the following number series.

24, 367, 584, 708, 772, 799

a. 24

b. 367

c. 584

d. 708

e. 772

37. Questions

78, 75, 66, 51, 30, 2

a. 2

b. 30

c. 51

d. 66

e. 75

38. Questions

26, 41, 52, 68, 86, 106

a. 26

b. 41

c. 52

d. 68

e. 86

39. Questions

2, 10, 38, 188, 938, 4688

a. 2

b. 10

c. 38

d. 188

e. 938

40. Questions

32, 50, 70, 94, 126, 178

a. 50

b. 178

c. 94

d. 70

e. 126

41. Questions

In each of the following questions, two equations are given. You have to solve both the equations to find the relation between x and y.

I). $2x - 3y = -1$

II). $3x - 5y = 0$

a. $x > y$

b. $x \geq y$

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

d. $x \leq y$

e. $x < y$

42. Questions

I). $x^2 - 23x + 90 = 0$

II). $y^2 - y - 20 = 0$

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). $x^2 - 13x - 14 = 0$

II). $y^2 + 8y + 12 = 0$

a. $x < y$

b. $x > y$

c. $x \leq y$

d. $x \geq y$

e. Relationship between x and y cannot be determined

44. Questions

I). $2x^2 - 29x + 105 = 0$

II). $y^2 - 15y + 56 = 0$

a. $x < y$

b. $x > y$

c. $x \leq y$

d. $x \geq y$

e. Relationship between x and y cannot be determined

45. Questions

I). $x^2 - 9x + 20 = 0$

II). $y^2 - 12y + 35 = 0$

a. $x < y$

b. $x > y$

c. $x \leq y$

d. $x \geq y$

e. Relationship between x and y cannot be determined

Explanations:

1. Questions

Years	The number of data scientists working in a company	The number of test developers working in a company
2019	80	120
2020	125	55
2021	45	90
2022	75	120
2023	100	80

Answer: C

The average number of data scientists working in 2021 and 2022 = (45 + 75)/2 = 120/2 = 60

The sum of the number of test developers working in 2020 and 2023 = 55 + 80 = 135

Required difference = 135 – 60 = 75

2. Questions

Years	The number of data scientists working in a company	The number of test developers working in a company
2019	80	120
2020	125	55
2021	45	90
2022	75	120
2023	100	80

Answer: D

The total number of employees (data scientists + test developers) working in 2019 = 80 + 120 = 200

Required ratio = 200:120 = 5:3

The number of female test developer working in 2023 = 5/8 * 80 = 50

3. Questions

Years	The number of data scientists working in a company	The number of test developers working in a company
2019	80	120
2020	125	55
2021	45	90
2022	75	120
2023	100	80

Answer: A

According to the question,

(125 – x)/ (55 + 3x – 4) = 20/11

11 * (125 – x) = 20 * (51 + 3x)

1375 – 11x = 1020 + 60x

355 = 71x

x = 5

4. Questions

Years	The number of data scientists working in a company	The number of test developers working in a company
2019	80	120
2020	125	55
2021	45	90
2022	75	120
2023	100	80

Answer: B

The number of data analysts working in 2021 = 90 * (100/75) = 120

Required average = (45 + 90 + 120)/3

= 255/3 = 85

5. Questions

Years	The number of data scientists working in a company	The number of test developers working in a company
2019	80	120
2020	125	55
2021	45	90
2022	75	120
2023	100	80

Answer: E

The number of females working in 2023 = [100 + 80] * (40/100) = 72

The number of female data scientists working in 2023 = 100 – 68 = 32

The number of female test developers working in 2023 = 72 – 32 = 40

6. Questions

In April,

The number of movie tickets sold by theatre A = 840

The number of movie tickets sold by theatre B =840 * (100/120) = 700

Similarly, we can calculate other values.

Months	The number of movie tickets sold by theatre A	The number of movie tickets sold by theatre B
April	840	700
May	960	1200
June	1080	600
July	1110	888

Answer: A

The number of tickets sold by theatre C in July = (120/100) * 840 = 1008

Required ratio = 1008:888 = 42:37

7. Questions

In April,

The number of movie tickets sold by theatre A = 840

The number of movie tickets sold by theatre B =840 * (100/120) = 700

Similarly, we can calculate other values.

Months	The number of movie tickets sold by theatre A	The number of movie tickets sold by theatre B
April	840	700
May	960	1200
June	1080	600
July	1110	888

Answer: C

The number of Tamil movie tickets sold by theatre B in May = 1200 * (5/8) = 750

Required difference = 750 – 700 = 50

8. Questions

In April,

The number of movie tickets sold by theatre A = 840

The number of movie tickets sold by theatre B =840 * (100/120) = 700

Similarly, we can calculate other values.

Months	The number of movie tickets sold by theatre A	The number of movie tickets sold by theatre B
April	840	700
May	960	1200
June	1080	600
July	1110	888

Answer: D

The total number of females who watched the movie in June = [1080 + 600] - 630 = 1050

The total number of females who watched the movie by theatre B in June = 1050 * (2/7) = 300

The number of males who watched the movie by theatre B in June = 600 – 300 = 300

9. Questions

In April,

The number of movie tickets sold by theatre A = 840

The number of movie tickets sold by theatre B =840 * (100/120) = 700

Similarly, we can calculate other values.

Months	The number of movie tickets sold by theatre A	The number of movie tickets sold by theatre B
April	840	700
May	960	1200
June	1080	600
July	1110	888

Answer: B

The average number of tickets sold by theatre B in all four given months together = [700 + 1200 + 600 + 888]/4

= 3388/4 = 847

The number of tickets unsold by theatre A in August = 7/11 * 847

= 539

10. Questions

In April,

The number of movie tickets sold by theatre A = 840

The number of movie tickets sold by theatre B =840 * (100/120) = 700

Similarly, we can calculate other values.

Months	The number of movie tickets sold by theatre A	The number of movie tickets sold by theatre B
April	840	700
May	960	1200
June	1080	600
July	1110	888

Answer: B

The total number of tickets sold by two given theatres in May = 960 + 1200 = 2160

The total number of tickets sold by two given theatres in July = 1110 + 888 = 1998

Required % = [(2160 – 1998)/1998] * 100

= [162/1998] * 100

= 8.1%

11. Questions

Answer: E

Initial quantity of milk in the mixture = 180 * (8/15) = 96 litres

Initial quantity of water in the mixture = 180 – 96 = 84 litres

According to the question,

(96 + x + 8)/ (84 + 2x – 16) = 6/5

(104 + x)/ (68 + 2x) = 6/5

520 + 5x = 408 + 12x

7x = 112

x = 16

12. Questions

Answer: E

The total runs scored in first 'x' matches = 48 * x = 48x

And runs scored in next 10 matches = 54 * 10 = 540

According to the question,

(48x + 540)/ (x + 10) = 49.2

48x + 540 = 49.2x + 492

1.2x = 48

x = 40

13. Questions

Answer: A

Let 'D' be the distance covered by Riya.

Increased speed of the car now = (x + 16) km/hr

According to the question,

D = x * 4

D = 4x

D = (x + 16) * [4 – 1 (36/60)]

4x = (x + 16) * [4 - (8/5)]

4x = (x + 16) * (12/5)

5x = (x + 16) * 3

5x – 3x = 48

2x = 48

x = 24

D = 4 * 24 = 96 km

Required distance = 96 km

14. Questions

Answer: B

Let the monthly income of Ram is Rs. 100x

The monthly savings of Ram = 100x * (48/100) = Rs. 48x

The monthly expenditure of Ram = 100x – 48x = Rs. 52x

Increased monthly income of Ram = 100x * (111.2/100) = Rs. 111.2x

Increased monthly savings of Ram = 48x * (145/100) = Rs. 69.6x

The monthly expenditure of Ram, now = 111.2x – 69.6x = Rs. 41.6x

According to the question,

52x – 41.6x = 520

10.4x = 520

x = 50

The monthly income of Ram initially = 50 * 100 = Rs. 5000

15. Questions

Answer: B

Let the cost price of article A be Rs. x

So, the cost price of article B = Rs. (x + 600)

According to the question,

x * (150/100) = (x + 600) * (105/100)

150x = 105x + 63000

45x = 63000

x = 1400

The cost price of article B = 1400 + 600 = Rs. 2000

16. Questions

Answer: D

Pipe B can fill half of the cistern in 11 (1/4) = 45/4 hours

So, pipe B can fill the entire cistern in 45/2 hours.

Let the capacity of the cistern be 45 units.

So, the efficiency of pipe A = 45/15 = 3 units/hour

The efficiency of pipe B = 45 ÷ (45/2) = 2 units/hour

Time taken by pipe A and pipe B together to fill 75% of the cistern = (75/100) * [45/ (3 + 2)] = 27/4 = 6 (3/4)

x = 6 hours 45 minutes

17. Questions

Answer: E

The amount received by Rani after 2 years = 15000 + 5184 = Rs. 20,184

Let the rate of interest be R% p.a.

According to the question,

$15000 * (1 + R/100)^2 = 20184$

$(1 + R/100)^2 = 841/625$

$(1 + R/100)^2 = (29/25)^2$

R/100 = (29/25) – 1

R/100 = 4/25

R = 16

Required interest = 16%

18. Questions

Answer: C

Radius of the sphere = 21/2 = 10.5 m

The surface area of the sphere = $4 * \pi * r^2 = 4 * (22/7) * 10.5 * 10.5 = 1386\ m^2$

So, the total surface area of the cube = $1386 – 36 = 1350\ m^2$

$6 * (\text{length of edge})^2 = 1350$

$(\text{Length of edge})^2 = 225$

Length of the edge of the cube = $\sqrt{225} = 15$ m

19. Questions

Answer: B

Let the speed of the stream be 'x' km/hr and they meet after 't' hours.

According to the question,

Distance covered while going upstream + Distance covered while going downstream = Total distance covered.

$(13 – x) * t + (8 + x) * t = 252$

$13t – xt + 8t + xt = 252$

$21t = 252$

$t = 12$

Required time taken = 12 hours

20. Questions

Answer: A

Let the profit share of A be Rs. y

Then, C's profit share = Rs. (y + 700)

B's profit share = y + 700 + 350 = Rs. (y + 1050)

$y + y + 700 + y + 1050 = 11200$

$3y = 11200 – 1750$

$y = 9450/3 = 3150$

The ratio between profit shares of A to B

$3150/ [3150 + 700 + 350] = x/12000$

$3150/4200 = x/12000$

$3/4 = x/ 12000$

x = 9000

The sum of the investments of A and C = 9000 + 9000 + 2000 = Rs. 20000

21. Questions

Answer: C

√961 * 5 + ? =129 + 83 * √9 – 203

31 * 5 + ? = 129 + 83 * 3 – 203

155 + ? = 129 + 249 – 203

? = 20

22. Questions

Answer: A

13% of 150 + 229 – 2800 ÷ 8 =? + 8 * 12

19.5 + 229 - 350 = ? + 96

= - 197.5

23. Questions

Answer: C

10% of ? + 110 % of 60 = √7744 * 5 – 12 * 4

10% of ? + 66 = 440 – 48

? = 3260

24. Questions

Answer: D

50% of 144 + √4624÷ 2 + ? =135 % of 180

72 + 34 + ? = 243

? = 137

25. Questions

Answer: C

179 + 321 – 567 + 117 =? + √64 * 4

? = 18

26. Questions

Answer: C

4.92 % of 539.91 – 48.01% of 450.19 = ?

27 – 216 = ?

-189 = ?

27. Questions

Answer: D

16.66% of 191.901 + 71.45% of 272.898 = ?

32 + 195 = ?

227 = ?

28. Questions

Answer: C

120.981 – √530 * 4.989 + 405.912 ÷ √840 = ?

121 – 115 + 14 = ?

20 = ?

29. Questions

Answer: A

83.33 % of 299.891 + 59.92 % of 105.04 = $?^2$ – 31.910 % of 149.91

5/6 * 300 + 63= $?^2$ – 48

250 + 63 + 48 = $?^2$

19 = ?

30. Questions

Answer: C

(359.911 ÷ 24.15) + 230.04 ÷ 1.91 = ? * √170

15 + 115 = ? * 13

? = 10

31. Questions

Answer: C

333 – 1^3= 332

332 – 2^3 = 324

324 – 3^3 = 297

297 – 4^3 = 233

233 – 5^3 = **108**

32. Questions

Answer: C

$12^2 + 2^2 = 148$

$11^2 + 3^2 = 130$

$10^2 + 4^2 = 116$

$9^2 + 5^2 = 106$

$8^2 + 6^2 = 100$

$7^2 + 7^2 =$ **98**

33. Questions

Answer: E

5*1 + 1 = 6

6*2 – 2 = 10

10*3 + 3 = 33

33*4 –4 = 128

128*5 + 5 = **645**

645*6 – 6 = 3864

34. Questions

Answer: D

16 * 2.5 = 40

40 * 3.5 = 140

140 * 4.5 = 630

630 * 5.5 = **3465**

3465 * 6.5 = 22522.5

35. Questions

Answer: D

24 * 0.5=**12**

12 * 1.5=18

18 * 2.5=45

45 * 3.5=157.5

157.5 * 4.5=708.75

36. Questions

Answer: C

$24 + 7^3 = 367$

$367 + 6^3 =$ **583**

$583 + 5^3 = 708$

$708 + 4^3 = 772$

$772 + 3^3 = 799$

37. Questions

Answer: A

$78 - 3 * 1 = 75$

$75 - 3 * 3 = 66$

$66 - 3 * 5 = 51$

$51 - 3 * 7 = 30$

$30 - 3 * 9 =$ **3**

38. Questions

Answer: B

$5^2 + 1 = 26$

$6^2 + 2 =$ **38**

$7^2 + 3 = 52$

$8^2 + 4 = 68$

$9^2 + 5 = 86$

$10^2 + 6 = 106$

39. Questions

Answer: B

$2 * 5 - 2 =$ **8**

$8 * 5 - 2 = 38$

$38 * 5 - 2 = 188$

$188 * 5 - 2 = 938$

938 * 5 – 2 = 4688

40. Questions

Answer: B

32 + 18 = 50

50 + 20 = 70

70 + 24 = 94

94 + 32 = 126

126 + 48 = **174**

41. Questions

Answer: E

2x – 3y = -1 --> (1)

3x – 5y = 0 ---> (2)

(1) * 3 = > 6x – 9y – 3 --> (3)

(2) * 2 = > 6x – 10y = 0 --> (4)

Subtract the equations (3) and (4), we get

= > y = - 3

Substitute the y value in equation (1), we get

2x – 3 * (-3) = -1

2x = -10

= > x = -5

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

x = -5, y = -3

Hence, x < y

42. Questions

Answer: B

$x^2 – 23x + 90 = 0$

$x^2 – 5x – 18x + 90 = 0$

x(x – 5) – 18(x – 5) = 0

x = 18, 5

$y^2 – y – 20 = 0$

$y^2 - 5y + 4y - 20 = 0$

$y(y - 5) + 4(y - 5) = 0$

$y = 5, -4$

Hence, x ≥ y

43. Questions

Answer: B

$x^2 - 13x - 14 = 0$

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

$x(x - 14) + 1(x - 14) = 0$

$(x + 1)(x - 14) = 0$

$x = -1, 14$

$y^2 + 8y + 12 = 0$

$y^2 + 6y + 2y + 12 = 0$

$y(y + 6) + 2(y + 6) = 0$

$(y + 2)(y + 6) = 0$

$y = -2, -6$

Hence, x > y

44. Questions

Answer: E

$2x^2 - 29x + 105 = 0$

$2x^2 - 14x - 15x + 105 = 0$

$2x(x - 7) - 15(x - 7) = 0$

$(2x - 15)(x - 7) = 0$

$x = 7.5, 7$

$y^2 - 15y + 56 = 0$

$y^2 - 7y - 8y + 56 = 0$

$y(y - 7) - 8(y - 7) = 0$

$(y - 8)(y - 7) = 0$

$y = 8, 7$

Relationship between x and y cannot be established.

45. Questions

Answer: C

$x^2 - 9x + 20 = 0$

$x^2 - 5x - 4x + 20 = 0$

$x(x - 5) - 4(x - 5) = 0$

$(x - 4)(x - 5) = 0$

$x = 4, 5$

$y^2 - 12y + 35 = 0$

$y^2 - 5y - 7y + 35 = 0$

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

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

$y = 5, 7$

Hence $x \leq y$