1. Questions

Study the following information carefully and answer the questions.

The given table chart shows the percentage distribution of the total number of sweaters and blankets sold in five different

shops, namely A, B, C, D and E respectively, and the ratio of the number of sweaters to blankets sold in these shops.

Shop	Percentage distribution of total number of sweaters and blankets sold	Ratio of number of sweaters to blankets sold
A	20%	3:2
B	15%	7:8
C	8%	5:3
D	22%	5:6
E	35%	12:13

Note: The total number of blankets and sweaters sold in shop D is 100 more than the total number of blankets and sweaters sold in shop A.

In shop C, the number of pillows sold is 8% more than that of sweaters. The ratio of the number of pillows sold in shops C to A is 2:5 respectively. Find the number of pillows and sweaters sold in Shop A.

a. 1105

b. 1275

c. 980

d. 760

e. 1240

2. Questions

In shop B, 60% of the blankets and sweaters are sold, and the rest are unsold. The ratio of blankets to sweaters unsold in shop B is 7:3. Find the difference between the number of blankets and sweaters that are unsold.

a. 150

b. 200

c. 350

d. 320

e. 180

3. Questions

The number of blankets sold in shop F is 1/5 more than that of number of blankets in shop D, and the ratio of the number of blankets to sweaters sold in shop F is 12:11. Find the total number of blankets and sweaters sold in Shop F.

a. 1100

b. 1380

c. 780

d. 1290

e. 800

4. Questions

Find the ratio between the number of blankets sold in shop E and the number of sweaters sold in shop C.

a. 5:21

b. 91:25

c. 19:5

d. 19:17

e. 28:7

5. Questions

The total number of blankets and sweaters sold in all shops together is what percentage of the total number of blankets sold in all the shops? (approximately)

a. 453%

b. 550%

c. 420%

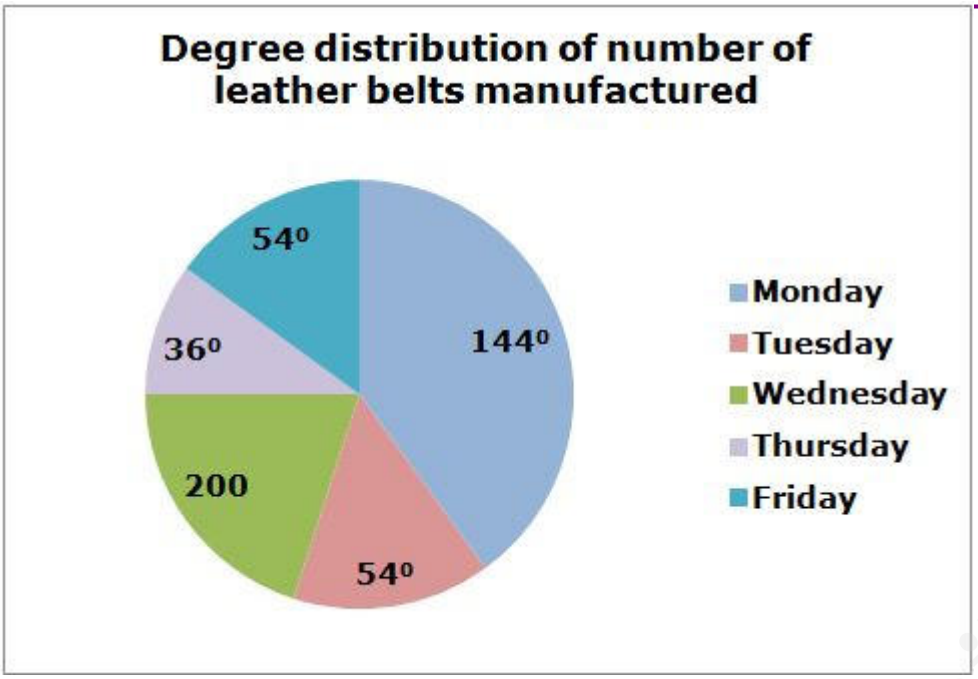
d. 203%

e. 345%

6. Questions

Study the following information carefully and answer the questions.

The given pie chart shows the degree distribution of number of leather belts manufactured on five different days namely Monday, Tuesday, Wednesday, Thursday and Friday, respectively.



The number of cloth belts manufactured on Friday was 6% higher than that of leather belts on Monday. Find the difference between the number of cloth belts and leather belts manufactured on Friday.

a. 274

b. 345

c. 290

d. 180

e. 450

7. Questions

The ratio of the number of leather belts sold to those unsold on Wednesday is 9:11. Out of the total number of leather belts sold, 40% are defective, and the rest are non defective. Find out the number of non-defective belts sold on Wednesday.

a. 54

b. 45

c. 36

d. 70

e. 20

8. Questions

If the number of leather belts manufactured on Tuesday is increased by 32% and 1/11 of the leather belts are unsold, then find the number of leather belts sold on Tuesday.

a. 175

b. 180

c. 166

d. 154

e. 134

9. Questions

Find the difference between the number of leather belts manufactured on Monday and Thursday.

a. 280

b. 300

c. 500

d. 450

e. 200

10. Questions

The total number of leather belts manufactured on Tuesday is what percentage of number of leather belts manufactured on Wednesday.

a. 70%

b. 65%

c. 75%

d. 50%

e. 80%

11. Questions

Study the following information carefully and answer the questions.

In a restaurant, milk and juice are sold in three different months namely January, February and March respectively. The quantity of a milk sold in March is 20% less than the quantity of milk sold in February. The quantity of milk sold in January is 20% more than the quantity of milk sold in February. The quantity of juice sold in March was 280 which is 30 more than the quantity of juice sold in February. The ratio of the quantity of juice sold in January to February is 4:5 respectively and the quantity of milk sold in February is double the quantity of juice sold in January.

The quantity of milk sold in April is 12% more than that of milk sold in February, and the quantity of juice sold in January is 20% less than that of April. Find the total quantity of milk and juice sold in April.

a. 698

b. 720

c. 745

d. 756

e. 600

12. Questions

In the month of March, 20% of the milk is sold for making ice-cream, 45% of the milk is sold for making sweets and rest of the milk is sold for making curd. Find the difference between the milk sold for making curd and ice-cream.

a. 40

b. 48

c. 52

d. 60

e. 75

13. Questions

Find the total quantity of juice sold in all the months together.

a. 730

b. 760

c. 680

d. 560

e. 500

14. Questions

Find the ratio between the quantities of milk sold in January to the quantity of juice sold in March.

a. 7:12

b. 12:7

c. 11:15

d. 9:7

e. 4:9

15. Questions

Find the difference between the quantity of milk sold in February and the quantity of juice sold in January.

a. 250

b. 480

c. 200

d. 540

e. 290

16. Questions

The interest received on investing a certain sum for 3 years at a simple interest rate of 16% p.a., is Rs. 1920. If twice the sum is invested at a rate of 20% p.a. in simple interest for 2 years, then find the interest.

a. Rs. 3500

b. Rs. 3200

c. Rs. 4200

d. Rs. 4000

e. Rs. 2100

17. Questions

A and B entered into a partnership, in which A invested Rs. 100 more than that of B. After 4 months, C entered into a business with an initial investment of Rs. 2000. After a year, the ratio of B to C's profit share is 3:5. Find the initial investment in A.

a. Rs. 900

b. Rs. 1200

c. Rs. 1600

d. Rs. 800

e. Rs. 1000

18. Questions

If the solution A is made of a mixture of milk and water, which has 300 litres of milk and 200 litres of water. Then another solution B has 20% less milk and x litres more water than solution A. The ratio of milk and water in solution B is 24:25. Find the value of x.

a. 80

b. 50

c. 70

d. 120

e. 44

19. Questions

The age of P after 10 years is equal to the present age of Q. The ratio of Q's age before 10 years to R's after 15 years is 2:3. The ratio of the present age of Q and R is 2:1. Find the present age of P.

a. 15 years

b. 20 years

c. 30 years

d. 25 years

e. 44 years

20. Questions

The number of teachers in two schools, A and B, is in the ratio of 3:5, respectively. If 80 teachers are added to school A and 20 teachers are removed from school B, then this ratio of school A to B becomes 19:24. Find the total number of teachers in both schools initially.

a. 800

b. 750

c. 650

d. 600

e. 1000

21. Questions

A boat can travel an equal distance of d km downstream and upstream in a total of 12 hours. The downstream speed and upstream speed are 14 km/hr and 10 km/hr, respectively. If the speed of the boat is increased by 5 km/hr, then find the time taken to travel (d+5) km upstream.

a. 12 hours

b. 10 hours

c. 8 hours

d. 5 hours

e. 6 hours

22. Questions

Pipe A alone can fill a tank in 70 minutes. When pipes A and B are together, they can fill a tank in 28 minutes. If the efficiency of pipe B is increased by 50%, then find the time taken to fill 80% of the tank by pipe B.

a. 24.8 minutes

b. 21.5 minutes

c. 17.8 minutes

d. 21 minutes

e. 22 minutes

23. Questions

The curved surface area of the cylinder is 352 cm^2 and the height is 8 cm. If the height of the cylinder is increased by 2 cm and the radius is doubled, then find the volume of the right circular cylinder.

a. 6160 cm^3

b. 5420 cm^3

c. 5490 cm^3

d. 6210 cm^3

e. 8400 cm^3

24. Questions

A train running with a speed of 72 km/hr crosses a bridge in 40 seconds, If the length of the train is thrice the length of the bridge, then find the time taken by the train to cross a pole with a speed of 54 km/hr.

a. 10 seconds

b. 15 seconds

c. 40 seconds

d. 20 seconds

e. 9 seconds

25. Questions

The average of five consecutive even numbers is 40. The value of the second consecutive odd number is three more than that of the fourth consecutive even number. Find the average of the first four consecutive odd numbers.

a. 46

b. 45

c. 54

d. 65

e. 29

26. Questions

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

(430 + 90/2)/5 – 60 =?

a. 35

b. 40

c. 25

d. 65

e. 44

27. Questions

14% of 750 – 44% of 600 +?^{2} = 37

a. 17

b. 21

c. 12

d. 14

e. 22

28. Questions

{(7/3) + (11/6)} * 36 – 72 = 6 *?

a. 18

b. 22

c. 13

d. 23

e. 16

29. Questions

250% of 50 * 5 + 44 =? + 45

a. 624

b. 566

c. 615

d. 604

e. 590

30. Questions

(44 + 12 + 14) / 5 *? = 57 * 5 + 3^2

a. 21

b. 15

c. 28

d. 13

e. 19

31. Questions

Find out the wrong number in the following number series.

21, 43, 87, 178, 351

a. 87

b. 351

c. 178

d. 43

e. 21

32. Questions

18, 7.7, 13.5, 6.75, 10.125

a. 13.5

b. 6.75

c. 7.7

d. 10.125

e. 18

33. Questions

166, 149, 136, 128, 118

a. 128

b. 136

c. 149

d. 118

e. 166

34. Questions

5, 31, 123, 749, 2955

a. 31

b. 2955

c. 749

d. 123

e. 5

35. Questions

126, 96, 64, 45, 34

a. 64

b. 45

c. 34

d. 126

e. 96

36. 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 answer as,

i). $x^2 - 24x + 80 = 0$

ii). $y^2 - 25x + 156 = 0$

a. $x > y$

b. $x \geq y$

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

d. $x < y$

e. $x \leq y$

37. Questions

i). $y^2 - 8y - 48 = 0$

ii). $x^2 - 14x + 48 = 0$

a. $x > y$

b. $x \geq y$

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

d. x < y

e. x ≤ y

38. Questions

i). $x^2 + 4x - 45 = 0$

ii). $y^2 + 16y + 63 = 0$

a. x > y

b. x ≥ y

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

d. x < y

e. x ≤ y

39. Questions

i). $x^2 + 13x - 114 = 0$

ii). $y^2 - 9y - 252 = 0$

a. x > y

b. x ≥ y

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

d. x < y

e. x ≤ y

40. Questions

i). $x^2 - 12x + 36 = 0$

ii). $y^2 + 18 + 81 = 0$

a. x > y

b. x ≥ y

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

d. x < y

e. x ≤ y

Explanations:

1. Questions

22% = 100 + 20%

2% = 100

100% = ?

2x%=100*100%

x=5000

The total number of blankets and sweaters sold in all shops together = 5000

The total number of blankets and sweaters sold in shop A = 5000 * 20/100 = 1000

The number of sweaters sold in shop A = 1000 * 3/5 = 600

The number of blankets sold in shop A = 1000 * 2/5 = 400

Similarly,

Shop	The total number of blankets and sweaters sold	The number of sweaters sold	The number of blankets sold
A	1000	600	400
B	750	350	400
C	400	250	150
D	1100	500	600
E	1750	840	910

Answer: B

The number of pillows sold in shop C = 250 * 108/100 = 270

The number of pillows sold in shop A = 270* 5/2 =675

Total number of pillows and sweaters in shop A = (675 + 600) = 1275

2. Questions

22% = 100 + 20%

2% = 100

100% = ?

2x%=100*100%

x=5000

The total number of blankets and sweaters sold in all shops together = 5000

The total number of blankets and sweaters sold in shop A = 5000 * 20/100 = 1000

The number of sweaters sold in shop A = 1000 * 3/5 = 600

The number of blankets sold in shop A = 1000 * 2/5 = 400

Similarly,

Shop	The total number of blankets and sweaters sold	The number of sweaters sold	The number of blankets sold
A	1000	600	400
B	750	350	400
C	400	250	150
D	1100	500	600
E	1750	840	910

Answer: B

The total number of blankets and sweaters sold in shop B = 750

The total number of blankets and sweaters manufactured in shop B = 750 * 100/60 = 1250

The total number of blankets and sweaters unsold in shop B = 1250 – 750 = 500

The number of blankets unsold in shop B = 500 * 7/10 = 350

The number of sweaters unsold in shop B = 500 * 3/10 = 150

Required difference = (350 – 150) = 200

3. Questions

22% = 100 + 20%

2% = 100

100% = ?

2x%=100*100%

x=5000

The total number of blankets and sweaters sold in all shops together = 5000

The total number of blankets and sweaters sold in shop A = 5000 * 20/100 = 1000

The number of sweaters sold in shop A = 1000 * 3/5 = 600

The number of blankets sold in shop A = 1000 * 2/5 = 400

Similarly,

Shop	The total number of blankets and sweaters sold	The number of sweaters sold	The number of blankets sold
A	1000	600	400
B	750	350	400
C	400	250	150
D	1100	500	600
E	1750	840	910

Answer: B

The number of blankets sold in shop F = 600 + 600/5 = 720

The number of sweaters sold in shop F = 720 * 11/12 = 660

Required sum = (720+ 660) = 1380

4. Questions

22% = 100 + 20%

2% = 100

100% = ?

2x%=100*100%

x=5000

The total number of blankets and sweaters sold in all shops together = 5000

The total number of blankets and sweaters sold in shop A = 5000 * 20/100 = 1000

The number of sweaters sold in shop A = 1000 * 3/5 = 600

The number of blankets sold in shop A = 1000 * 2/5 = 400

Similarly,

Shop	The total number of blankets and sweaters sold	The number of sweaters sold	The number of blankets sold
A	1000	600	400
B	750	350	400
C	400	250	150
D	1100	500	600
E	1750	840	910

Answer: B

The number of blankets sold in shop E = 910

The number of sweaters sold in shop C =250

Required ratio =910: 250 = 91:25

5. Questions

22% = 100 + 20%

2% = 100

100% = ?

2x%=100*100%

x=5000

The total number of blankets and sweaters sold in all shops together = 5000

The total number of blankets and sweaters sold in shop A = 5000 * 20/100 = 1000

The number of sweaters sold in shop A = 1000 * 3/5 = 600

The number of blankets sold in shop A = 1000 * 2/5 = 400

Similarly,

Shop	The total number of blankets and sweaters sold	The number of sweaters sold	The number of blankets sold
A	1000	600	400
B	750	350	400
C	400	250	150
D	1100	500	600
E	1750	840	910

Answer: D

The total number of blankets and sweaters sold in all shop together = 5000

The total number of blankets in all the shops = (400+400+150+600+910) = 2460

Required % =(5000/2460)*100= 203%

6. Questions

The number leather belts manufactured on Wednesday =200

The total number of leather belts manufactured on all days together = 200 * 360/72 = 1000

The number of leather belts manufactured on Monday = 1000 * 144/360 = 400

The number of leather belts manufactured on Tuesday = 1000 * 54/360 = 150

The number of leather belts manufactured on Wednesday = 200

The number of leather belts manufactured on Thursday = 1000 * 36/360 = 100

The number of leather belts manufactured on Friday = 1000 * 54/360 = 150

Days	The total number of leather belts manufactured
Monday	400
Tuesday	150
Wednesday	200
Thursday	100
Friday	150

Answer: A

The number of cloth belts manufactured on Friday = 400 * 106/100 = 424

The number of leather belts manufactured on Friday = 150

Required difference = (424 – 150) = 274

7. Questions

The number leather belts manufactured on Wednesday =200

The total number of leather belts manufactured on all days together = 200 * 360/72 = 1000

The number of leather belts manufactured on Monday = 1000 * 144/360 = 400

The number of leather belts manufactured on Tuesday = 1000 * 54/360 = 150

The number of leather belts manufactured on Wednesday = 200

The number of leather belts manufactured on Thursday = 1000 * 36/360 = 100

The number of leather belts manufactured on Friday = 1000 * 54/360 = 150

Days	The total number of leather belts manufactured
Monday	400
Tuesday	150
Wednesday	200
Thursday	100
Friday	150

Answer: A

The number of leather belts manufactured on Wednesday = 200

The number of leather belts sold on Wednesday = 200 * 9/20 = 90

The number of leather belts unsold on Wednesday = 200 * 11/20 = 110

The number of non-defective leather belts sold on Wednesday = 90 * 60/100 = 54

8. Questions

The number leather belts manufactured on Wednesday =200

The total number of leather belts manufactured on all days together = 200 * 360/72 = 1000

The number of leather belts manufactured on Monday = 1000 * 144/360 = 400

The number of leather belts manufactured on Tuesday = 1000 * 54/360 = 150

The number of leather belts manufactured on Wednesday = 200

The number of leather belts manufactured on Thursday = 1000 * 36/360 = 100

The number of leather belts manufactured on Friday = 1000 * 54/360 = 150

Days	The total number of leather belts manufactured
Monday	400
Tuesday	150
Wednesday	200
Thursday	100
Friday	150

Answer: B

The number of leather belts manufactured on Tuesday = 150 * 132/100 = 198

The number of leather belts unsold on Tuesday = 198 * 1/11 = 18

The number of leather belts sold on Tuesday = 198 – 18 = 180

9. Questions

The number leather belts manufactured on Wednesday =200

The total number of leather belts manufactured on all days together = 200 * 360/72 = 1000

The number of leather belts manufactured on Monday = 1000 * 144/360 = 400

The number of leather belts manufactured on Tuesday = 1000 * 54/360 = 150

The number of leather belts manufactured on Wednesday = 200

The number of leather belts manufactured on Thursday = 1000 * 36/360 = 100

The number of leather belts manufactured on Friday = 1000 * 54/360 = 150

Days	The total number of leather belts manufactured
Monday	400
Tuesday	150
Wednesday	200
Thursday	100
Friday	150

Answer: B

The number of leather belts manufactured on Monday = 400

The number of leather belts manufactured on Thursday = 100

Required difference = (400 – 100) = 300

10. Questions

The number leather belts manufactured on Wednesday =200

The total number of leather belts manufactured on all days together = 200 * 360/72 = 1000

The number of leather belts manufactured on Monday = 1000 * 144/360 = 400

The number of leather belts manufactured on Tuesday = 1000 * 54/360 = 150

The number of leather belts manufactured on Wednesday = 200

The number of leather belts manufactured on Thursday = 1000 * 36/360 = 100

The number of leather belts manufactured on Friday = 1000 * 54/360 = 150

Days	The total number of leather belts manufactured
Monday	400
Tuesday	150
Wednesday	200
Thursday	100
Friday	150

Answer: C

The number of leather belts manufactured on Tuesday = 150

The number of leather belts manufactured on Wednesday = 200

Required percentage = 150/200 * 100 = 75%

11. Questions

The quantity of juice sold in March = 280

The quantity of juice sold in February = 280 – 30 = 250

The quantity of juice sold in January = 250 * 4/5 = 200

The quantity of milk sold in February = 200 * 2 = 400

The ratio of quantity of milk sold in January, February and march = 6:5:4

The quantity of milk sold in January = 400 * 6/5 = 480

The quantity of milk sold in March = 400 * 4/5 = 320

Month	The quantity of milk sold	The quantity of juice sold
January	480	200
February	400	250
March	320	280

Answer: A

The quantity of milk sold in April = 400 * 112/100 = 448

The quantity of juice sold in April = 200 * 100/80 = 250

Required sum = (448 + 250) = 698

12. Questions

The quantity of juice sold in March = 280

The quantity of juice sold in February = 280 – 30 = 250

The quantity of juice sold in January = 250 * 4/5 = 200

The quantity of milk sold in February = 200 * 2 = 400

The ratio of quantity of milk sold in January, February and march = 6:5:4

The quantity of milk sold in January = 400 * 6/5 = 480

The quantity of milk sold in March = 400 * 4/5 = 320

Month	The quantity of milk sold	The quantity of juice sold
January	480	200
February	400	250
March	320	280

Answer: B

The quantity of milk sold in the month of March = 320

The quantity of milk sold for making ice-cream in March = 320 * 20/100 = 64

The quantity of milk sold for making sweets in March = 320 * 45/100 = 144

The quantity of milk sold for making curd in March = 320 * 35/100 = 112

Required difference = (112 – 64) = 48

13. Questions

The quantity of juice sold in March = 280

The quantity of juice sold in February = 280 – 30 = 250

The quantity of juice sold in January = 250 * 4/5 = 200

The quantity of milk sold in February = 200 * 2 = 400

The ratio of quantity of milk sold in January, February and march = 6:5:4

The quantity of milk sold in January = 400 * 6/5 = 480

The quantity of milk sold in March = 400 * 4/5 = 320

Month	The quantity of milk sold	The quantity of juice sold
January	480	200
February	400	250
March	320	280

Answer: A

The total quantity of juice sold in all months together = (200 + 250 + 280) = 730

14. Questions

The quantity of juice sold in March = 280

The quantity of juice sold in February = 280 – 30 = 250

The quantity of juice sold in January = 250 * 4/5 = 200

The quantity of milk sold in February = 200 * 2 = 400

The ratio of quantity of milk sold in January, February and march = 6:5:4

The quantity of milk sold in January = 400 * 6/5 = 480

The quantity of milk sold in March = 400 * 4/5 = 320

Month	The quantity of milk sold	The quantity of juice sold
January	480	200
February	400	250
March	320	280

Answer: B

The quantity of milk sold in January = 480

The quantity of milk sold in March = 280

Required average = 480: 280 = 12:7

15. Questions

The quantity of juice sold in March = 280

The quantity of juice sold in February = 280 – 30 = 250

The quantity of juice sold in January = 250 * 4/5 = 200

The quantity of milk sold in February = 200 * 2 = 400

The ratio of quantity of milk sold in January, February and march = 6:5:4

The quantity of milk sold in January = 400 * 6/5 = 480

The quantity of milk sold in March = 400 * 4/5 = 320

Month	The quantity of milk sold	The quantity of juice sold
January	480	200
February	400	250
March	320	280

Answer: C

The quantity of milk sold in February = 400

The quantity of juice sold in January = 200

Required difference = (400 – 200) = 200

16. Questions

Answer: B

According to the question,

Let, the initial investment = Rs. x

SI = x * 3 * 16/100

1920 = 48x/100

1920 = 0.48x

x = 4000

SI = 8000 * 2 * 20/100

SI = Rs. 3200

17. Questions

Answer: A

According to the question,

Let, the initial investment of B = Rs. x

The initial investment of A = Rs. (x+100)

The ratio of profit share of A, B to C = ((x+100) * 12): (x * 12): (2000 * 8)

= (12x + 1200): 12x: 16000

= (6x + 600): 6x: 8000

= (3x + 300): 3x: 4000

3x/4000 = 3/5

x = 800

The initial investment of A = (800 + 100) = Rs. 900

18. Questions

Answer: B

According to the question,

The quantity of milk in the solution A = 300 litres

The quantity of water in the solution A = 200 litres

The quantity of milk in the solution B = 300 * 80/100 = 240 litres

The quantity of water in the solution B = (200 +x) litres

240/(200+x) = 24/25

240*25 = (200+x)24

6000 = 4800+24x

1200 = 24x

x =50

19. Questions

Answer: B

According to the question,

let, the present age of Q, before 10 years to R after 15 years be 2x and 3x respectively

(2x +10)/(3x - 15) = 2/1

2x + 10 = 6x – 30

4x = 40

x = 10

The present age of Q = 2*10 + 10 = 30 years

The present age of P = 30 – 10 = 20 years

20. Questions

Answer: A

According to the question,

Let, the total number of teachers in both the schools be 8x

(3x + 80)/(5x – 20) = 19/24

72x + 1920 = 95x – 380

23x = 2300

x = 100

The total number of teachers in both schools initially = 8 * 100 = 800

21. Questions

Answer: D

According to the question,

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

The speed of the stream = y km/hr

x + y = 14 ---> (1)

x – y = 10 ---> (2)

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

x = 12 and y = 2

The speed of the boat = 12 km/hr

The speed of the stream = 2 km/hr

d/14 + d/10 = 12

(5d + 7d)/70 = 12

d = 70

d + 5 = 75

If the speed of the boat is increased = 12 + 5 = 17 km/hr

Upstream speed = 17-2 = 15km/hr

Time taken = 75/15 = 5 hours

22. Questions

Answer: A

According to the question,

Let, the total units = 140 units/minute

The efficiency of A alone = 140/70 = 2 units/ minute

The combined efficiency of A and B = 140/28 = 5 units/ minute

The efficiency of B alone = 5 – 2 = 3 units/ minute

After increased,

The efficiency of B alone = 3*3/2 = 4.5 units/day

80% of the tank = 140 * 80/100 = 112units

Time taken = 112/4.5 = 24.8 hours

23. Questions

Answer: A

According to the question,

Let, the radius of the cylinder = r cm

The curved surface area of the cylinder = 2πrh

352 = 2 * 22/7 * 8 * r

r = 7 cm

If the height and radius are increased,

The height of the cylinder = 8 + 2 = 10 cm

The radius of the cylinder = 7 * 2 = 14 cm

The volume of right circular cylinder = $\pi r^2 h$ cm^3

= (22/7) * 14 * 14 * 10

= 6160 cm^3

24. Questions

Answer: C

According to the question,

The speed of the train = 72 * 5/18 = 20 m/s

The total distance covered by the train = 20 * 40 = 800 metres

Let, the length of the bridge = x metres

So, the length of the train = 3x metres

3x + x = 800

4x = 800

x = 200

The length of the train = 3 * 2 = 600 m

Time taken = 600*18/(54*5) = 40 seconds

25. Questions

Answer: A

Let, the consecutive even numbers be,

x, x+2, x+4, x+6, x+8

(x + x + 2 + x + 4 + x + 6 + x + 8) = 40*5

5x + 20 = 200

5x = 180

x = 36

The fourth consecutive even number = 36 + 6 = 42

The second consecutive odd number = (42 + 3) = 45

Required average = (43 + 45 + 47 + 49)/4 = 46

26. Questions

Answer: A

(430 + 90/2)/5 – 60 =?

475/5 – 60 =?

95 – 60 =?

? = 35

27. Questions

Answer: D

14% of 750 – 44% of 600 +$?^2$ = 37

105 – 264 +$?^2$ = 37

$?^2$ = 196

? = 14

28. Questions

Answer: C

{(7/3) + (11/6)} * 36 – 72 = 6 *?

(7 * 2 + 11)/6 * 36 – 72 = 6 *?

(14 + 11) * 6 – 72 = 6 *?

25 * 6 – 72 = 6 * ?

? = (150 – 72)/6

? = 13

29. Questions

Answer: A

250% of 50 * 5 + 44 =? + 45

125 * 5 + 44 =? + 45

625 + 44 =? +45

669 – 45 =?

? = 624

30. Questions

Answer: A

(44 + 12 + 14) / 5 *? = 57 * 5 + 3^2

70/5 * ? = 285 + 9

14 * ? = 294

?=294/14

? = 21

31. Questions

Answer: C

21 * 2 + 1 = 43

43 * 2 + 1 = 87

87 * 2 + 1 = **175**

175 * 2 + 1 = 351

32. Questions

Answer: C

18 * 0.5 = **9**

9 * 1.5 = 13.5

13.5 * 0.5 = 6.75

6.75 * 1.5 = 10.125

33. Questions

Answer: A

166 – 17 = 149

149 – 13 = 136

136 – 11 = **125**

125 – 7 = 118

34. Questions

Answer: C

5 * 6 + 1 = 31

31 * 4 – 1 = 123

123 * 6 + 1 = **739**

739 * 4 – 1 = 2955

35. Questions

Answer: E

11^2 + 5 = 126

9^2 + 10 = **91**

7^2 + 15 = 64

5^2 + 20 = 45

3^2 + 25 = 34

36. Questions

Answer: C

x^2 – 20x – 4x + 80 =0

x(x-20)-4(x-20)=0

(x -20) (x -4) =0

x = 20, 4

y^2 – 12y – 13y + 156 = 0

y(y-12)-13(y-12)=0

(y – 12) (y – 13) = 0

y = 12, 13

Hence, x = y or relationship cannot be determined

37. Questions

Answer: C

x^2 – 8x – 6x + 48 =0

x(x-8)-6(x-8)=0

(x -8) (x -6) =0

x = 8, 6

$y^2 – 8y – 48 = 0$

$y^2 – 12y + 4y – 48 = 0$

y(y-12)+4(y-12)=0

(y + 4) (y- 12) = 0

y = 12, -4

Hence, x =y or relationship cannot be determined

38. Questions

Answer: C

$x^2 + 4x – 45 = 0$

$x^2 + 9x - 5x – 45 = 0$

x(x+9)-5(x+9)=0

(x +9) (x -5) = 0

x = -9, 5

$y^2 + 9y + 7y + 63 = 0$

y(y+9)+7(y+9)=0

(y + 9) (y + 7) = 0

y = -9, -7

Hence, x = y or relationship can't be determined.

39. Questions

Answer: C

$x^2 + 13x – 114 = 0$

$x^2 + 19x - 6x - 114 = 0$

x(x+19)-6(x+19)=0

(x + 19) (x-6) = 0

x = -19, 6

$y^2 - 9y – 252 = 0$

$y^2 - 21y + 12y – 252 = 0$

y(y-21)+12(y-21)=0

(y- 21) (y +12) = 0

y = -12, 21

Hence, x=y or relationship cannot be determined

40. Questions

Answer: A

x^2 -6x -6x + 36 =0

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

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

x = 6, 6

y^2 + 9x + 9x + 81 = 0

y(y+9)+9(x+9)=0

(y+9) (y +9) = 0

y = -9, -9

Hence, x > y