1. Questions

Read the following information carefully and answer the questions.

The given table chart shows the percentage of the number of people using digital watches out of total number of people working in five different companies A, B, C, D and E and also given the number of people using analog watches in these companies and also given the total number of people working in these companies.

Note: Total number of people working = Number of people using digital watches + Number of people using analog watches + Number of people using smart watches

Company	% of the number of people using digital watches	Number of people using analog watches	Total number of people working
A	28%	640	2000
B	25%	700	1520
C	18%	860	2400
D	20%	600	1400
E	34%	496	1600

If the number of people using analog watches in Company F is 20% more than that of Company D and the number of people using digital watches in Company F is 48 more than that of Company C and the number of people using smart watches in Company F is 550, then find the total number of people working in Company F.

a. 1680

b. 1600

c. 1700

d. 1750

e. None of these

2. Questions

If the ratio of the number of male to female working in Company C is 5:3 and the number of male using digital watches and analog watches in Company C is 200 and 430 respectively, then find the difference between the number of male using smart watches and the number of female using digital watches in Company C.

a. 638

b. 438

c. 738

d. 538

e. None of these

3. Questions

Out of the total number of people using smart watches in Company D, 60% of them are using samsung smart watches and the ratio of the number of people using samsung smart watches in Company C to Company D is 7:6. Find the number of people using samsung smart watches in Company C.

a. 428

b. 375

c. 364

d. 300

e. None of these

4. Questions

The number of people using analog watches in Company B is what percentage of the total number of people working in Company D?

a. 58%

b. 50%

c. 64%

d. 44%

e. None of these

5. Questions

Find the ratio of the number of people using smart watches in Company A to the number of people using analog watches in Company D.

a. 7:5

b. 3:2

c. 8:5

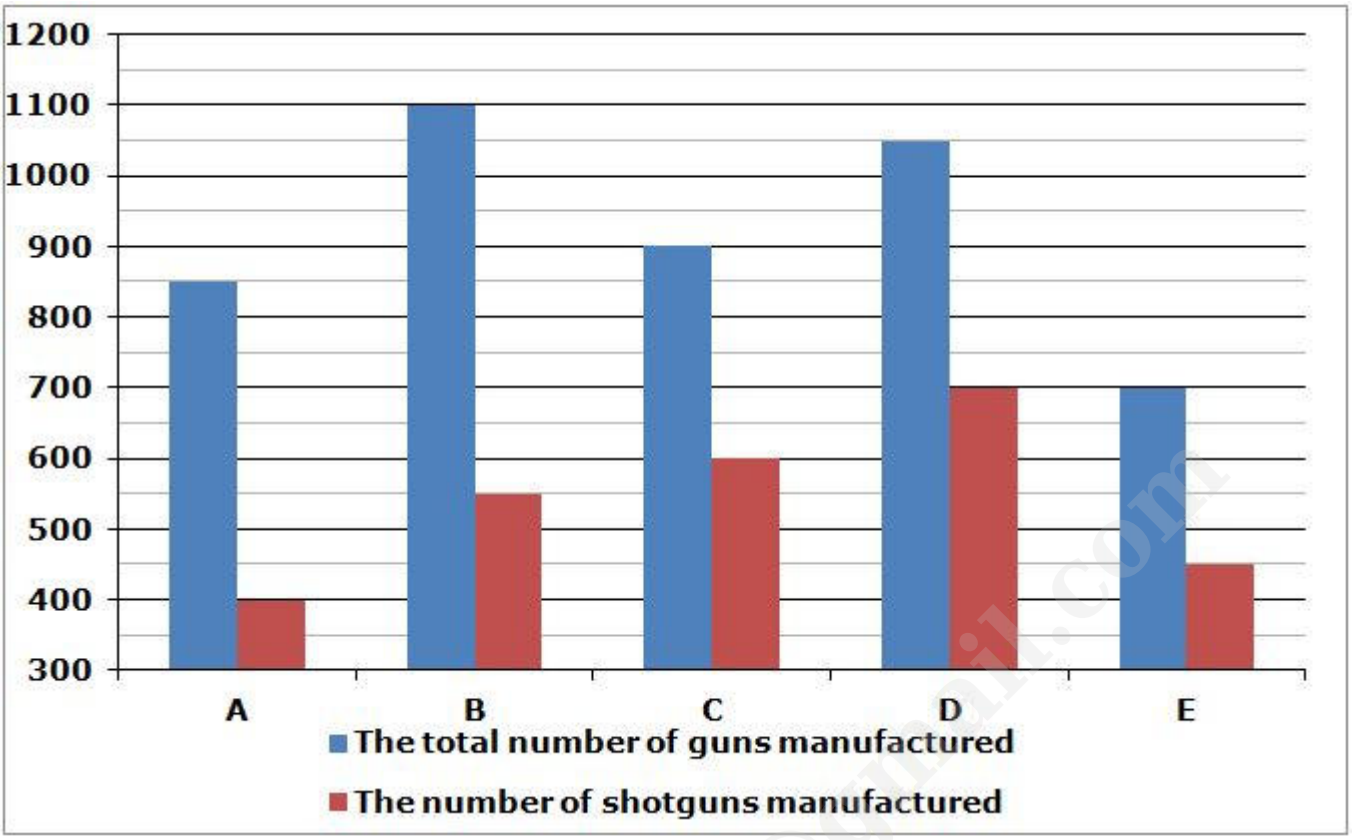
d. 4:3

e. None of these

6. Questions

Study the following information carefully and answer the questions.

The given bar graph shows the total number of guns (shotguns and handguns) manufactured by five different companies i.e. A, B, C, D and E in 2021 and also given the number of shotguns manufactured by five different companies in 2021.



If the total number of guns manufactured by company D in 2022 is 20% less than that of 2021 and the number of handguns manufactured by company D in 2021 to 2022 is 7:6, then find the number of shotguns manufactured by company D in 2022?

a. 600

b. 420

c. 540

d. 360

e. None of these

7. Questions

Find the ratio of the number of handguns manufactured by company A to the number of handguns manufactured by company D?

a. 8:5

b. 2:1

c. 5:3

d. 9:7

e. None of these

8. Questions

If the ratio of the number of shotguns sold to unsold by company E is 5:4 and the ratio of the

number of handguns sold to unsold by company E is 3:2, then find the number of guns sold by company E.

a. 520
b. 400
c. 720
d. 640
e. None of these

9. Questions

If the average number of shotguns manufactured by companies A, C and X is 500 and the ratio of the number of shotguns to handguns manufactured by company X is 5:4, then find the total number of guns manufactured by company X.

a. 900
b. 630
c. 810
d. 720
e. None of these

10. Questions

The number of handguns manufactured by company C is what percentage of the total number of shotguns manufactured by companies B and E together?

a. 30%
b. 70%
c. 50%
d. 40%
e. None of these

11. Questions

The sum of the present average ages of A, B, and C is 10 more than the sum of the present average ages of C, D, and E . The ratio of the present age of C to E is 2:3, and the ratio of the present age of D to E is 1:3. Find the difference between the present ages of D and C, if the sum of the present ages of A, B, and and C is 120.

a. 32 years
b. 15 years
c. 25 years

d. 30 years

e. 35 years

12. Questions

The area of a square is 475 m^2 more than the area of the rectangle, and the side of the square is 5 m more than the length of the rectangle. If the length of the rectangle is 20% more than its breadth, then find the perimeter of the square?

a. 160m

b. 280m

c. 170m

d. 140m

e. 200m

13. Questions

The number of students in school A is 60% of the number of students in school B ,and the ratio of the number of girls to boys in school B is 7:3 . The number of girls in school A is 200 more than the number of boys in the same school. If the ratio of the number of girls in school A to school B is 11:14 , then find the number of girls in both schools together?

a. 390

b. 500

c. 450

d. 300

e. 230

14. Questions

P is 20% more efficient than Q and 25% less efficient than R. Together, they take 30 days to complete the whole work. Find the difference between the time taken by P to do 30% of the work and the time taken by R to do 80% of the work.

a. 20.5 days

b. 29.5 days

c. 40.5 days

d. 28.5 days

e. 30.5 days

15. Questions

Suhani covers 30% his journey at the speed of 20km/hr, 20% of his journey at the speed of

10km/hr, and the remaining journey he covered at the speed of 40km/hr. Find the average speed of Suhani for the whole journey. (approximate value)?

a. 21 km/hr

b. 41 km/hr

c. 11 km/hr

d. 61 km/hr

e. 18 km/hr

16. Questions

Study the given information carefully and answer the following questions.

There are 900 students in 'Hostel-A' and they prefer three types of beverages: Fanta, Coke, and Pepsi. The number of students who preferred only Fanta is 20 more than the number of students who preferred only Coke, and the ratio of the number of students who preferred only Coke to only Pepsi is 4:5. 20% of the students in the hostel prefer all three beverages.The number of students who preferred only Fanta and Coke but not Pepsi is 70, which is 70% of the number of students who preferred only Pepsi and Coke but not Fanta. The number of students who preferred exactly two beverages is 260. 20% of the total number of students in the hostel don't like any beverages.

In Hostel X, the number of students who preferred only Coke is P% of the number of students who preferred only Fanta in Hostel A. If P is the smallest two-digit composite number, then find the number of students who Preferred only Coke in Hostel X?

a. 10

b. 12

c. 18

d. 19

e. 22

17. Questions

Find the ratio of the number of students who preferred Coke to the number of students who preferred Pepsi?

a. 1:1

b. 2:7

c. 43:47

d. 11:13

e. 9:11

18. Questions

The number of students who preferred exactly one of the beverages is what percent of the number of students who preferred exactly two beverages?

a. 80%

b. 100%

c. 107.69%

d. 121.23%

e. 122.9%

19. Questions

The number of students who preferred only tea is 20% of the number of students who preferred only Pepsi. Find the ratio between the number of students who preferred only tea and only Coke?

a. 1:1

b. 1:4

c. 2:3

d. 4:5

e. 1:6

20. Questions

The ratio of the number of girls to the number of boys who preferred only Coke and only Pepsi is 2:3 and 1:4, respectively. Find the number of girls who preferred only Coke and only Pepsi?

a. 52

b. 45

c. 67

d. 78

e. 90

21. Questions

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

$4^4 * 9^3 / (2^3 * 3^2)^{=}$?

a. 3327

b. 2332

c. 3335

d. 2592

e. 2360

22. Questions

120% of 4000 -? = 125% of 2200

a. 2050

b. 1235

c. 1010

d. 1350

e. 1250

23. Questions

1/2 of ? + 2/3 of 117 = 20% 0f 400

a. 8

b. 2

c. 4

d. 6

e. 5

24. Questions

5 (1/5) + 3 (1/3) + 4 (1/6) -1 (4/9) =?

a. 11 (1/20)

b. 11 (23/90)

c. 11 (12/65)

d. 11 (14/15)

e. 11 (12/13)

25. Questions

1/2 of 1/4 of 1/5 of 1/6 of 1000=?

a. 24

b. 25

c. 32

d. 30

e. None of these

26. Questions

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

$(23.37 \times 3.87 + 18 \times 6.05) / ((6.03)^2 + \sqrt{(256.10)} + 12.01) = ?$

a. 9

b. 3

c. 12

d. 15

e. None of these

27. Questions

$(12.99 \times 29.99 + 24.99 \times 40.01) \div 13 = (?)^2$

a. 12

b. 11

c. 10

d. 9

e. 13

28. Questions

$4567.8 - (221 \times 9.7) = 5059 - ?$

a. 3400

b. 2400

c. 2700

d. 3800

e. None of these

29. Questions

4 (1/5) of 275.5 +260.50 + 6 (1/5) of 125.75 = ?

a. 3500

b. 2200

c. 4300

d. 1700

e. None of these

30. Questions

35% of 2788 + 49.8% of 1234 =?

a. 2800

b. 3200

c. 4100

d. 1600

e. None of these

31. Questions

Find out the missing number in the following number series.

26, 78, 312, 1560, 9360, ?

a. 18009

b. 33357

c. 25977

d. 65520

e. 52055

32. Questions

31, 35, 47, 67, 95, ?

a. 107

b. 100

c. 103

d. 131

e. 124

33. Questions

5979, 5915, 5815, 5671, 5475, ?

a. 5233

b. 5219

c. 5235

d. 5229

e. 5231

34. Questions

1002, 1334, 1732, 2202, 2750, ?

a. 3394

b. 3382

c. 3374

d. 3330

e. 3406

35. Questions

959, 1040, 1209, 1498, 1939, ?

a. 2564

b. 2586

c. 2574

d. 2482

e. 2560

36. Questions

Find out the wrong number in the following number series.

513, 520, 530, 544, 561, 580

a. 513

b. 530

c. 520

d. 544

e. 561

37. Questions

15, 14, 25, 75, 296, 1475

a. 14

b. 1475

c. 25

d. 296

e. 15

38. Questions

4, 13, 41, 125, 389, 1183

a. 13

b. 389

c. 41

d. 1183

e. 125

39. Questions

3,4,10,17,33,58

a. 58

b. 4

c. 10

d. 17

e. 33

40. Questions

2, 22, 47, 77, 115

a. 115

b. 77

c. 47

d. 22

e. 2

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). $x^2-21x+108=0$

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

a. $x > y$

b. $x \leq y$

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

d. $x < y$

e. $x \geq y$

42. Questions

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

II). $y^2+10y+21=0$

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). $2x^2-8x+8=0$

II). $3y^2-10y+8=0$

a. $x > y$

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

c. $x \geq y$

d. $x < y$

e. $x \leq y$

44. Questions

I). $2x^2 + 20x + 48 = 0$

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

a. $x > y$

b. $x \geq y$

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

d. $x < y$

e. $x \leq y$

45. Questions

I). $x^2+ 25x + 144 = 0$

II). $y^2 - 18y + 77 = 0$

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

Company A:

Number of people using digital watches = 2000 * 28/100 = 560

Number of people using smart watches = 2000 – 560 – 640 = 800

Company B:

Number of people using digital watches = 1520 * 25/100 = 380

Number of people using smart watches = 1520 – 380 – 700 = 440

Company C:

Number of people using digital watches = 2400 * 18/100 = 432

Number of people using smart watches = 2400 – 432 – 860 = 1108

Company D:

Number of people using digital watches = 1400 * 20/100 = 280

Number of people using smart watches = 1400 – 280 – 600 = 520

Company E:

Number of people using digital watches = 1600 * 34/100 = 544

Number of people using smart watches = 1600 – 544 – 496 = 560

Company	Number of people using digital watches	Number of people using analog watches	Number of people using smart watches
A	560	640	800
B	380	700	440
C	432	860	1108
D	280	600	520
E	544	496	560

Answer: D

Number of people using analog watches in Company F = 600 * 120/100 = 720

Number of people using digital watches in Company F = 432 + 48 = 480

Total number of people working in Company F = 720 + 480 + 550 = 1750

2. Questions

Company A:

Number of people using digital watches = 2000 * 28/100 = 560

Number of people using smart watches = 2000 – 560 – 640 = 800

Company B:

Number of people using digital watches = 1520 * 25/100 = 380

Number of people using smart watches = 1520 – 380 – 700 = 440

Company C:

Number of people using digital watches = 2400 * 18/100 = 432

Number of people using smart watches = 2400 – 432 – 860 = 1108

Company D:

Number of people using digital watches = 1400 * 20/100 = 280

Number of people using smart watches = 1400 – 280 – 600 = 520

Company E:

Number of people using digital watches = 1600 * 34/100 = 544

Number of people using smart watches = 1600 – 544 – 496 = 560

Company	Number of people using digital watches	Number of people using analog watches	Number of people using smart watches
A	560	640	800
B	380	700	440
C	432	860	1108
D	280	600	520
E	544	496	560

Answer: A

Number of male working in Company C = 2400 * 5/8 = 1500

Number of male using smart watches in Company C = 1500 – 200 – 430 = 870

Number of female using digital watches in Company C = 432 – 200 = 232

Required difference = 870 – 232 = 638

3. Questions

Company A:

Number of people using digital watches = 2000 * 28/100 = 560

Number of people using smart watches = 2000 – 560 – 640 = 800

Company B:

Number of people using digital watches = 1520 * 25/100 = 380

Number of people using smart watches = 1520 – 380 – 700 = 440

Company C:

Number of people using digital watches = 2400 * 18/100 = 432

Number of people using smart watches = 2400 – 432 – 860 = 1108

Company D:

Number of people using digital watches = 1400 * 20/100 = 280

Number of people using smart watches = 1400 – 280 – 600 = 520

Company E:

Number of people using digital watches = 1600 * 34/100 = 544

Number of people using smart watches = 1600 – 544 – 496 = 560

Company	Number of people using digital watches	Number of people using analog watches	Number of people using smart watches
A	560	640	800
B	380	700	440
C	432	860	1108
D	280	600	520
E	544	496	560

Answer: C

Number of people using samsung smart watches in Company D = 520 * 60/100 = 312

Number of people using samsung smart watches in Company C = 312 * 7/6 = 364

4. Questions

Company A:

Number of people using digital watches = 2000 * 28/100 = 560

Number of people using smart watches = 2000 – 560 – 640 = 800

Company B:

Number of people using digital watches = 1520 * 25/100 = 380

Number of people using smart watches = 1520 – 380 – 700 = 440

Company C:

Number of people using digital watches = 2400 * 18/100 = 432

Number of people using smart watches = 2400 – 432 – 860 = 1108

Company D:

Number of people using digital watches = 1400 * 20/100 = 280

Number of people using smart watches = 1400 – 280 – 600 = 520

Company E:

Number of people using digital watches = 1600 * 34/100 = 544

Number of people using smart watches = 1600 – 544 – 496 = 560

Company	Number of people using digital watches	Number of people using analog watches	Number of people using smart watches
A	560	640	800
B	380	700	440
C	432	860	1108
D	280	600	520
E	544	496	560

Answer: B

Required percentage = 700/1400 * 100 = 50%

5. Questions

Company A:

Number of people using digital watches = 2000 * 28/100 = 560

Number of people using smart watches = 2000 – 560 – 640 = 800

Company B:

Number of people using digital watches = 1520 * 25/100 = 380

Number of people using smart watches = 1520 – 380 – 700 = 440

Company C:

Number of people using digital watches = 2400 * 18/100 = 432

Number of people using smart watches = 2400 – 432 – 860 = 1108

Company D:

Number of people using digital watches = 1400 * 20/100 = 280

Number of people using smart watches = 1400 – 280 – 600 = 520

Company E:

Number of people using digital watches = 1600 * 34/100 = 544

Number of people using smart watches = 1600 – 544 – 496 = 560

Company	Number of people using digital watches	Number of people using analog watches	Number of people using smart watches
A	560	640	800
B	380	700	440
C	432	860	1108
D	280	600	520
E	544	496	560

Answer: D

Required ratio = 800:600 = 4:3

6. Questions

The number of handguns manufactured by company A = 850 – 400 = 450

The number of handguns manufactured by company B = 1100 – 550 = 550

The number of handguns manufactured by company C = 900 – 600 = 300

The number of handguns manufactured by company D = 1050 – 700 = 350

The number of handguns manufactured by company E = 700 – 450 = 250

Companies	The total number of guns manufactured	The number of shotguns manufactured	The number of handguns manufactured
A	850	400	450
B	1100	550	550
C	900	600	300
D	1050	700	350
E	700	450	250

Answer: C

The total number of guns manufactured by company D in 2022 = 1050 * (80/100) = 840

The number of handguns manufactured by company D in 2022 = 350 * (6/7) = 300

The number of shotguns manufactured by company D in 2022 = 840 – 300 = 540

7. Questions

The number of handguns manufactured by company A = 850 – 400 = 450

The number of handguns manufactured by company B = 1100 – 550 = 550

The number of handguns manufactured by company C = 900 – 600 = 300

The number of handguns manufactured by company D = 1050 – 700 = 350

The number of handguns manufactured by company E = 700 – 450 = 250

Companies	The total number of guns manufactured	The number of shotguns manufactured	The number of handguns manufactured
A	850	400	450
B	1100	550	550
C	900	600	300
D	1050	700	350
E	700	450	250

Answer: D

Required ratio = 450:350 = 9:7

8. Questions

The number of handguns manufactured by company A = 850 – 400 = 450

The number of handguns manufactured by company B = 1100 – 550 = 550

The number of handguns manufactured by company C = 900 – 600 = 300

The number of handguns manufactured by company D = 1050 – 700 = 350

The number of handguns manufactured by company E = 700 – 450 = 250

Companies	The total number of guns manufactured	The number of shotguns manufactured	The number of handguns manufactured
A	850	400	450
B	1100	550	550
C	900	600	300
D	1050	700	350
E	700	450	250

Answer: B

The number of shotguns sold by company E=450 * [5/(5 + 4)] = 450 * (5/9) = 250

The number of handguns sold by company E = 250 * [3/(3 + 2)] = 250 * (3/5) = 150

The total number of guns sold by company E = 250 + 150 = 400

9. Questions

The number of handguns manufactured by company A = 850 – 400 = 450

The number of handguns manufactured by company B = 1100 – 550 = 550

The number of handguns manufactured by company C = 900 – 600 = 300

The number of handguns manufactured by company D = 1050 – 700 = 350

The number of handguns manufactured by company E = 700 – 450 = 250

Companies	The total number of guns manufactured	The number of shotguns manufactured	The number of handguns manufactured
A	850	400	450
B	1100	550	550
C	900	600	300
D	1050	700	350
E	700	450	250

Answer: A

The total number of shotguns manufactured by companies A, C and X together = 500 * 3 = 1500

The number of shotguns manufactured by company X = 1500 – (400 + 600) = 1500 – 1000 = 500

The total number of guns manufactured by company X = 500 * [(5 + 4)/5] = 500 * (9/5) = 900

10. Questions

The number of handguns manufactured by company A = 850 – 400 = 450

The number of handguns manufactured by company B = 1100 – 550 = 550

The number of handguns manufactured by company C = 900 – 600 = 300

The number of handguns manufactured by company D = 1050 – 700 = 350

The number of handguns manufactured by company E = 700 – 450 = 250

Companies	The total number of guns manufactured	The number of shotguns manufactured	The number of handguns manufactured
A	850	400	450
B	1100	550	550
C	900	600	300
D	1050	700	350
E	700	450	250

Answer: A

The total number of shotguns manufactured by companies B and E together = 550 + 450 = 1000

Required percentage = [300/1000] * 100 = 30%

11. Questions

Answer: B

According to the question,

Present age of C = 2x years

Present age of E = 3x years

Present age of D = x years

(A + B + C)/3 – 10 = (C + D + E)/3

120/3 – 10 = (2x + x + 3x)/3

90 = 6x

x = 15

Required difference = 2 * 15 – 15 = 15 years

12. Questions

Answer: D

Let the length of the rectangle be 6x

Breadth of the rectangle = 5x

Side of the square=6x+5

According to the question,

$(6x+5)^2-(30x^2)=475$

$36x^2+25+60x-30x^2=475$

$6x^2+60x-450=0$

$x^2+10x-75=0$

x=-15,+5

Side of the square = 6 * 5 + 5 = 35 m

Perimeter of the square=35*4=140m

13. Questions

Answer: B

Let the number of students in school B be 200x

Number of students in school A=120x

Number of girls in school B=140x

Number of boys in school B=60x

Number of girls in school A= (120x+200)/2=60x+100

Number of boys in school A=60x-100

According to the question,

(60x+100)/140x=11/14

840x+1400=1540x

700x=1400

x=2

Required sum =120+100+140*2=500

14. Questions

Answer: D

Let the efficiency of Q=5unit/day

Efficiency of P=6 unit/day

Efficiency of R=6/3*4=8unit/day

Total work=(5+6+8) *30=570 units

Time taken by p to do 30% of the work =570/6*30/100 =28.5 days

Time taken by R to do 80% of the work =570/8*80/100 =57 days

Required answer=57-28.5=28.5 days

15. Questions

Answer: A

Let the total distance covered be 400x km

Average speed=Total distance/total time taken

= (400x)/(120x/20+80x/10+200x/40)=400x/6x+8x+5x

= 400x/19x = 21 km/hr (approx)

16. Questions

Number of students who preferred all three beverages =900*20/100=180

Number of students who preferred only Fanta and Coke but not Pepsi =70

Number of students who preferred only Coke and Pepsi but not Fanta = 70/70*100=100

Number of students who preferred only Fanta and Pepsi but not Coke =260-(70+100)=90

Number of students who preferred only Pepsi =5x

Number of students who preferred only Coke = 4x

Number of students who preferred only Fanta = 4x+20

According to the question,

4x+20 + 4x + 5x = 900 – 180 – 260 – 180

13x + 20 = 280

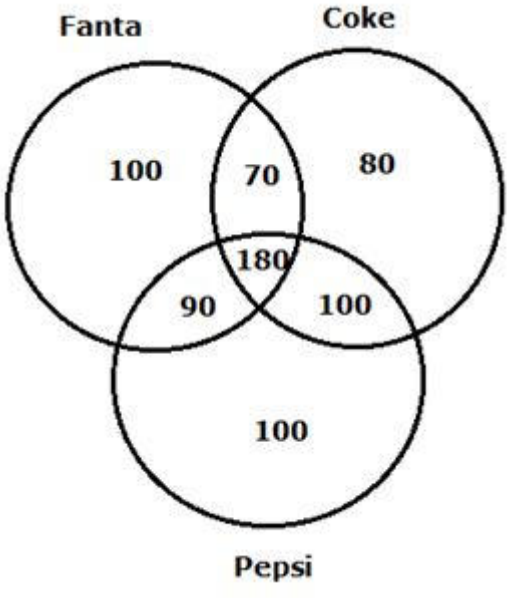
13x=260

x=20

Number of students who preferred only Fanta = 4 * 20 + 20 = 100

Number of students who preferred only Coke= 4 * 20 = 80

Number of students who preferred only Pepsi= 5 * 20 = 100



Answer: A

P=10

Number of students who preferred only Coke in Hostel X =100*10/100=10

Required answer=10

17. Questions

Number of students who preferred all three beverages =900*20/100=180

Number of students who preferred only Fanta and Coke but not Pepsi =70

Number of students who preferred only Coke and Pepsi but not Fanta = 70/70*100=100

Number of students who preferred only Fanta and Pepsi but not Coke =260-(70+100)=90

Number of students who preferred only Pepsi =5x

Number of students who preferred only Coke = 4x

Number of students who preferred only Fanta = 4x+20

According to the question,

4x+20 + 4x + 5x = 900 – 180 – 260 – 180

13x + 20 = 280

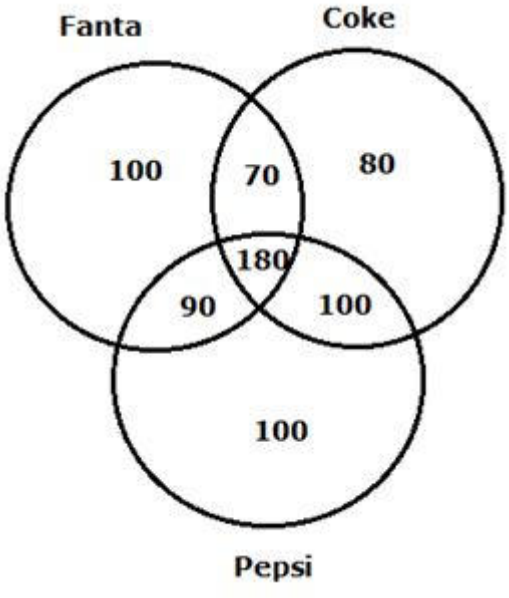
13x=260

x=20

Number of students who preferred only Fanta = 4 * 20 + 20 = 100

Number of students who preferred only Coke= 4 * 20 = 80

Number of students who preferred only Pepsi= 5 * 20 = 100



Answer: C

Number of students who preferred Coke= 70 + 180 + 100 + 80 = 430

Number of students who preferred Pepsi= 90 + 180 + 100 + 100 = 470

Required ratio = 430:470 = 43:47

18. Questions

Number of students who preferred all three beverages =900*20/100=180

Number of students who preferred only Fanta and Coke but not Pepsi =70

Number of students who preferred only Coke and Pepsi but not Fanta = 70/70*100=100

Number of students who preferred only Fanta and Pepsi but not Coke =260-(70+100)=90

Number of students who preferred only Pepsi =5x

Number of students who preferred only Coke = 4x

Number of students who preferred only Fanta = 4x+20

According to the question,

4x+20 + 4x + 5x = 900 – 180 – 260 – 180

13x + 20 = 280

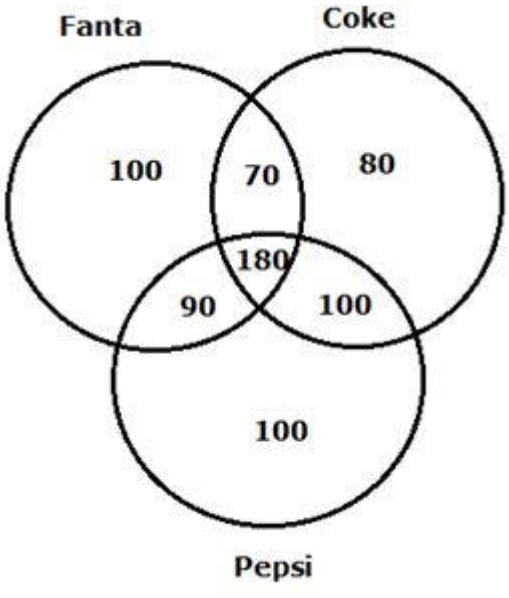
13x=260

x=20

Number of students who preferred only Fanta = 4 * 20 + 20 = 100

Number of students who preferred only Coke= 4 * 20 = 80

Number of students who preferred only Pepsi= 5 * 20 = 100



Answer: C

Number of students who preferred only 1 beverage=80+100+100=280

Number of students who preferred exactly two beverages =90+100+70=260

Required percentage=280/260*100=107.69%

19. Questions

Number of students who preferred all three beverages =900*20/100=180

Number of students who preferred only Fanta and Coke but not Pepsi =70

Number of students who preferred only Coke and Pepsi but not Fanta = 70/70*100=100

Number of students who preferred only Fanta and Pepsi but not Coke =260-(70+100)=90

Number of students who preferred only Pepsi =5x

Number of students who preferred only Coke = 4x

Number of students who preferred only Fanta = 4x+20

According to the question,

4x+20 + 4x + 5x = 900 – 180 – 260 – 180

13x + 20 = 280

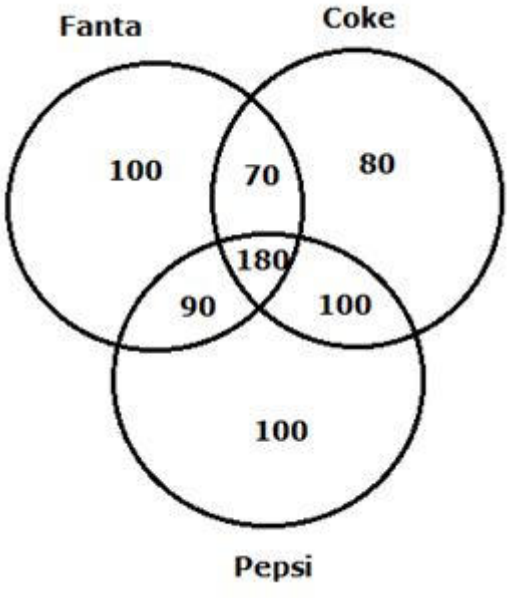
13x=260

x=20

Number of students who preferred only Fanta = 4 * 20 + 20 = 100

Number of students who preferred only Coke= 4 * 20 = 80

Number of students who preferred only Pepsi= 5 * 20 = 100



Answer: B

Number of students who preferred only tea =100*20/100=20

Required ratio=20:80=1:4

20. Questions

Number of students who preferred all three beverages =900*20/100=180

Number of students who preferred only Fanta and Coke but not Pepsi =70

Number of students who preferred only Coke and Pepsi but not Fanta = 70/70*100=100

Number of students who preferred only Fanta and Pepsi but not Coke =260-(70+100)=90

Number of students who preferred only Pepsi =5x

Number of students who preferred only Coke = 4x

Number of students who preferred only Fanta = 4x+20

According to the question,

4x+20 + 4x + 5x = 900 – 180 – 260 – 180

13x + 20 = 280

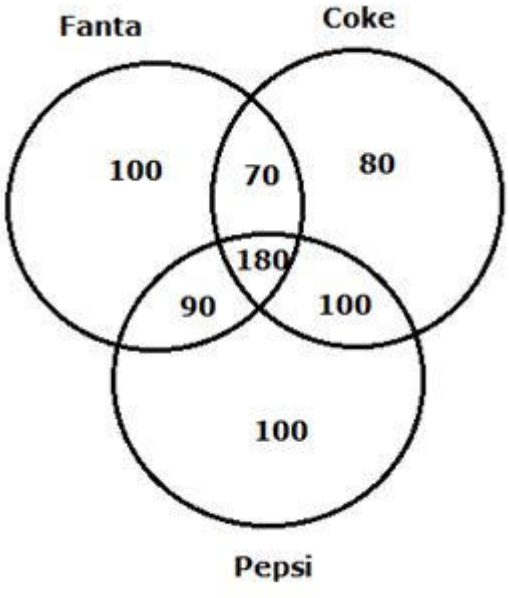
13x=260

x=20

Number of students who preferred only Fanta = 4 * 20 + 20 = 100

Number of students who preferred only Coke= 4 * 20 = 80

Number of students who preferred only Pepsi= 5 * 20 = 100



Answer: A

Number of girls who preferred only Coke=80/5*2=32

Number of girls who preferred only Pepsi=100*1/5=20

Required sum = 32 + 20 = 52

21. Questions

Answer: D

$4^4 * 9^3 /(2^3 * 3^2)$=?

=> $(2^2)^4 *(3^2)^3/ (2^3 * 3^2)$

=>$2^8 * 3^6 / (2^3 * 3^2)$

=>$2^{8-3} * 3^{6-2}$

= > 32 * 81

= 2592

22. Questions

Answer: A

120% of 4000 -? = 125% of 2200

= > 4800 – 2750

= > 2050

23. Questions

Answer: C

1/2 of ? + 2/3 of 117 = 20% of 400

1/2 of ? + 2 * 39 = 80

1/2 of ? + 78 = 80

So 1/2 of ? = 2

= > ?= 4

24. Questions

Answer: B

5 (1/5) + 3 (1/3) + 4 (1/6) - 1 (4/9) =?

= > (5 + 3 + 4 - 1) + (1/5 + 1/3 + 1/6 – 4/9)

= > 11 + (18 + 30 + 15 - 40)/90

= > 11+ (23)/90

= > 11 (23/90)

25. Questions

Answer: E

1/2 * 1/4 * 1/5 * 1/6 *1000 =?

= > 1000/240 =?

= > 25/6 =?

26. Questions

Answer: B

[(23 × 4) + (18 × 6)] /(36 + 16 + 12) = x

x= 200/64 = 3

27. Questions

Answer: C

$(13 \times 30 + 25 \times 40) \div 13 = (?)^2$

$1390 \div 13 = (?)^2$

$? = \sqrt{106}$

? = 10

28. Questions

Answer: C

x= 5059 - 4568 + (221 × 10)

x= 5059 - 4568 + 2210

x= 2701

29. Questions

Answer: B

(21/5) * 275 + 261 + (31/5) * 125 = x

X = 1155 +261+ 775

X = 2191

30. Questions

Answer: D

(35/100)*2790 + (50/100) * 1234 = x

x= 980 + 617 = 1597

31. Questions

Answer: D

26 * 3 = 78

78 * 4 = 312

312 * 5 = 1560

1560 * 6 = 9360

9360 * 7 = **65520**

32. Questions

Answer: D

31 + 4 * 1 = 35

35 + 4 * 3 = 47

47 + 4 * 5 =67

67 + 4 * 7 = 95

95 + 4 * 9 = **131**

33. Questions

Answer: B

$5979 - 8^2 = 5915$

$5915 - 10^2 = 5815$

$5815 - 12^2 = 5671$

$5671 - 14^2 = 5475$

$5475 - 16^2 = \mathbf{5219}$

34. Questions

Answer: B

$10^3 + 2 = 1002$

$11^3 + 3 = 1334$

$12^3 + 4 = 1732$

$13^3 + 5 = 2202$

$14^3 + 6 = 2750$

$15^3 + 7 = 3382$

35. Questions

Answer: A

$959 + 9^2 = 1040$

$1040 + 13^2 = 1209$

$1209 + 17^2 = 1498$

$1498 + 21^2 = 1939$

$1939 + 25^2 = \mathbf{2564}$

36. Questions

Answer: B

513 + 7 = 520

520 + 11 = **531**

531 + 13= 544

544 + 17= 561

561 + 19= 580

37. Questions

Answer: C

15 x 1-1 = 14

14 x 2 – 2 = **26**

26 x 3 – 3 = 75

75 x 4 - 4 = 296

296 x 5 -5 = 1475

38. Questions

Answer: E

4 x 3 + 1 = 13

13 x 3 +2 = 41

41 x 3 +4 = **127**

127 x 3 + 8 = 389

389 x 3 + 16 = 1183

39. Questions

Answer: C

$3 + 1^2=4$

$4+2^2$ = **8**

$8 +3^2 = 17$

$17 + 4^2 = 33$

$33 +5^2 = 58$

40. Questions

Answer: A

2 22 47 77 **112**

20 25 30 35

41. Questions

Answer: B

x^2-21x+108=0

$x^2 – 12x – 9x + 108 = 0$

x(x – 12) – 9(x – 12) = 0

(x-9) (x-12)=0

x=9,12

y^2-25y+156 =0

$y^2 – 13y – 12y + 156 = 0$

y(y – 13) – 12(y – 13) = 0

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

y=13,12

x ≤ y

42. Questions

Answer: C

x^2+9x+20=0

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

(x+5) (x+4) =0

x=-5, -4

y^2+10y+21=0

y^2+7y+3y+21=0

(y+3) (y+7) =0

y = -3, -7

Therefore relationship between x and y can't be established

43. Questions

Answer: C

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

$2x^2$-4x-4x+8=0

(2x-4) (2x-4) =0

x=2, 2

$3y^2$-10y+8=0

$3y^2$-6y-4y+8=0

(3y-6) (3y-4) =0

y=2, 1.33

Therefore x ≥ y

44. Questions

Answer: A

$2x^2$ + 20x + 48 = 0

$2x^2$ + 12x + 8x + 48 = 0

$2x(x + 6) + 8(x + 6) = 0$

$(2x + 8)(x + 6) = 0$

$x = -4, -6$

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

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

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

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

$y = -7, -8$

$x > y$

45. Questions

Answer: A

$x^2 + 25x + 144 = 0$

$\Rightarrow (x + 16)(x + 9) = 0$

$\Rightarrow x = -16, -9$

$y^2 - 18y + 77 = 0$

$\Rightarrow (y - 7)(y - 11) = 0$

$\Rightarrow y = 7, 11$

Hence, x < y