

100 DI Practice Questions

Directions (1-4): Read the following information carefully and answer the questions given below.

A shopkeeper purchased two articles, Article A and Article B. The cost price of an article A is Rs x. Article A is sold at 20% profit. The selling price of Article B is Rs y. Article B is sold at 25% loss. The selling price of article A is Rs 300 and the ratio of the cost price of articles A to B is 5:4 respectively.

Q1. Find the value of 'Y+50'.

- (a) 200
- (b) 150
- (c) 100
- (d) 250
- (e) 300

Ans.(a)

Cost price of article A = Rs x

Selling price of article A = $(120/100) \times x = 1.2x$ Rs

Selling price of article B = Rs y

Cost price of article B = $(100/75) \times y = (4/3)y$ Rs

Given:

$$300 = 1.2x$$

$$x = 250$$

$$\text{Cost price of article B} = 250 \times (4/5) = 200 \text{ Rs}$$

Now,

$$200 = (4/3)y$$

$$y = 150$$

Articles	Cost price (In Rs)	Selling price (In Rs)
A	250	300
B	200	150

$$\text{Required value} = Y + 50$$

$$= 150 + 50 = 200$$

Q2. Find the value of X/5.

- (a) 60
- (b) 50
- (c) 40
- (d) 70
- (e) 30

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Ans.(b)

Cost price of article A = Rs x

Selling price of article A = $(120/100) \times x = 1.2x$ Rs

Selling price of article B = Rs y

Cost price of article B = $(100/75) \times y = (4/3)y$ Rs

Given:

$$300 = 1.2x$$

$$x = 250$$

Cost price of article B = $250 \times (4/5) = 200$ Rs

Now,

$$200 = (4/3)y$$

$$y = 150$$

Articles	Cost price (In Rs)	Selling price (In Rs)
A	250	300
B	200	150

Required value = $250 / 5 = 50$

= 50

Q3. Find the selling price of article B (in Rs).

(a) 200

(b) 250

(c) 300

(d) 150

(e) None of these

Ans.(d)

Cost price of article A = Rs x

Selling price of article A = $(120/100) \times x = 1.2x$ Rs

Selling price of article B = Rs y

Cost price of article B = $(100/75) \times y = (4/3)y$ Rs

Given:

$$300 = 1.2x$$

$$x = 250$$

Cost price of article B = $250 \times (4/5) = 200$ Rs

Now,

$$200 = (4/3)y$$

$$y = 150$$

Articles	Cost price (In Rs)	Selling price (In Rs)
A	250	300
B	200	150

Required answer = Rs 150

Q4. . If the cost price of article C is 40% less than that of article A and article C is sold at a 10% profit, then find the selling price of article C (in Rs).

- (a) 205
- (b) 195
- (c) 180
- (d) 150
- (e) 165

Ans.(e)

Cost price of article A = Rs x

Selling price of article A = $(120/100) \times x = 1.2x$ Rs

Selling price of article B = Rs y

Cost price of article B = $(100/75) \times y = (4/3)y$ Rs

Given:

$$300 = 1.2x$$

$$x = 250$$

$$\text{Cost price of article B} = 250 \times (4/5) = 200 \text{ Rs}$$

Now,

$$200 = (4/3)y$$

$$y = 150$$

Articles	Cost price (In Rs)	Selling price (In Rs)
A	250	300
B	200	150

$$\text{Cost price of article C} = (60/100) \times 250 = 150 \text{ Rs}$$

$$\text{Selling price of article C} = (110/100) \times 150 = 165 \text{ Rs}$$

Directions (5-9): Read the following table carefully and answer the questions given below. The table below shows the total number of employees in departments X and Y together in four different companies and the fraction of employees working in department Y.

Companies	Total Employees (X + Y)	Fraction of Employees in Y
A	540	7/9
B	480	5/8
C	600	3/5
D	420	4/7

Note: Total employees = Employees in Department X + Department Y

Q5. Find the average number of employees in companies B and C.

- (a) 550
- (b) 540
- (c) 510
- (d) 590
- (e) 530

Ans.(b)

For A:

Total employees = 540

Employees in Y = $(7/9) \times 540 = 420$

Employees in X = $540 - 420 = 120$

For B:

Total employees = 480

Employees in Y = $(5/8) \times 480 = 300$

Employees in X = $480 - 300 = 180$

For C:

Total employees = 600

Employees in Y = $(3/5) \times 600 = 360$

Employees in X = $600 - 360 = 240$

For D:

Total employees = 420

Employees in Y = $(4/7) \times 420 = 240$

Employees in X = $420 - 240 = 180$

Company	Total Employees	Employees in Y	Employees in X
A	540	420	120
B	480	300	180
C	600	360	240
D	420	240	180

Required average = $(480 + 600)/2 = 540$

Q6. The total number of employees (X and Y) in company E is 45% more than that of company C. If the number of employees in X in company E is the average number of employees in Y in companies A and D, then find the sum of the number of employees in Y in companies E and C together.

- (a) 900
- (b) 870
- (c) 930
- (d) 1040
- (e) 1230

Ans.(a)

For A:

Total employees = 540

Employees in Y = $(7/9) \times 540 = 420$

Employees in X = $540 - 420 = 120$

For B:

Total employees = 480

Employees in Y = $(5/8) \times 480 = 300$

Employees in X = $480 - 300 = 180$

For C:

Total employees = 600

Employees in Y = $(3/5) \times 600 = 360$

Employees in X = $600 - 360 = 240$

For D:

Total employees = 420

Employees in Y = $(4/7) \times 420 = 240$

Employees in X = $420 - 240 = 180$

Company	Total Employees	Employees in Y	Employees in X
A	540	420	120
B	480	300	180
C	600	360	240
D	420	240	180

Total number of employees (X and Y) in company E = $(145/100) \times 600 = 870$

Number of employees in X in company E = $(420 + 240) \div 2 = 330$

The number of employees in Y in company E = $870 - 330 = 540$

Required sum = $540 + 360 = 900$

Q7. The total number of employees in X in company C is what percentage more or less than the total number of employees in Y in company D?

- (a) 1.5%
- (b) 5%
- (c) 10%
- (d) 2.5%
- (e) 0%

Ans.(e)

For A:

Total employees = 540

Employees in Y = $(7/9) \times 540 = 420$

Employees in X = $540 - 420 = 120$

For B:

Total employees = 480

Employees in Y = $(5/8) \times 480 = 300$

Employees in X = $480 - 300 = 180$

For C:

Total employees = 600

Employees in Y = $(3/5) \times 600 = 360$

Employees in X = $600 - 360 = 240$

For D:

Total employees = 420

Employees in Y = $(4/7) \times 420 = 240$

Employees in X = $420 - 240 = 180$

Company	Total Employees	Employees in Y	Employees in X
A	540	420	120
B	480	300	180
C	600	360	240
D	420	240	180

$$\text{Required percentage} = \frac{240 - 240}{240} \times 100 = 0\%$$

Q8. Find the ratio of the number of employees in Y in company A to the number of employees in X in company D.

- (a) 5:6
- (b) 3:7
- (c) 7:3
- (d) 6:5
- (e) 7:2

Ans.(c)

For A:

Total employees = 540

Employees in Y = $(7/9) \times 540 = 420$

Employees in X = $540 - 420 = 120$

For B:

Total employees = 480

Employees in Y = $(5/8) \times 480 = 300$

Employees in X = $480 - 300 = 180$

For C:

Total employees = 600

Employees in Y = $(3/5) \times 600 = 360$

Employees in X = $600 - 360 = 240$

For D:

Total employees = 420

Employees in Y = $(4/7) \times 420 = 240$

Employees in X = $420 - 240 = 180$

Company	Total Employees	Employees in Y	Employees in X
A	540	420	120
B	480	300	180
C	600	360	240
D	420	240	180

Required ratio = 420 : 180

= 7:3

Q9. In company A, the ratio of males to females in X is 3:5, and the number of females in Y is twice the number of males in X. Find the difference between the number of males in X and Y together in company A and the number of females in X and Y together in company A.

- (a) 210
- (b) 230
- (c) 190
- (d) 180
- (e) 200

Ans.(a)

For A:

Total employees = 540

Employees in Y = $(7/9) \times 540 = 420$

Employees in X = $540 - 420 = 120$

For B:

Total employees = 480

Employees in Y = $(5/8) \times 480 = 300$

Employees in X = $480 - 300 = 180$

For C:

Total employees = 600

Employees in Y = $(3/5) \times 600 = 360$

Employees in X = $600 - 360 = 240$

For D:

Total employees = 420

Employees in Y = $(4/7) \times 420 = 240$

Employees in X = $420 - 240 = 180$

Company	Total Employees	Employees in Y	Employees in X
A	540	420	120
B	480	300	180
C	600	360	240
D	420	240	180

Number of males in X in company A = $120 \times (3/8) = 45$

Number of females in X in company A = $120 - 45 = 75$

Number of females in Y in company A = $2 \times 45 = 90$

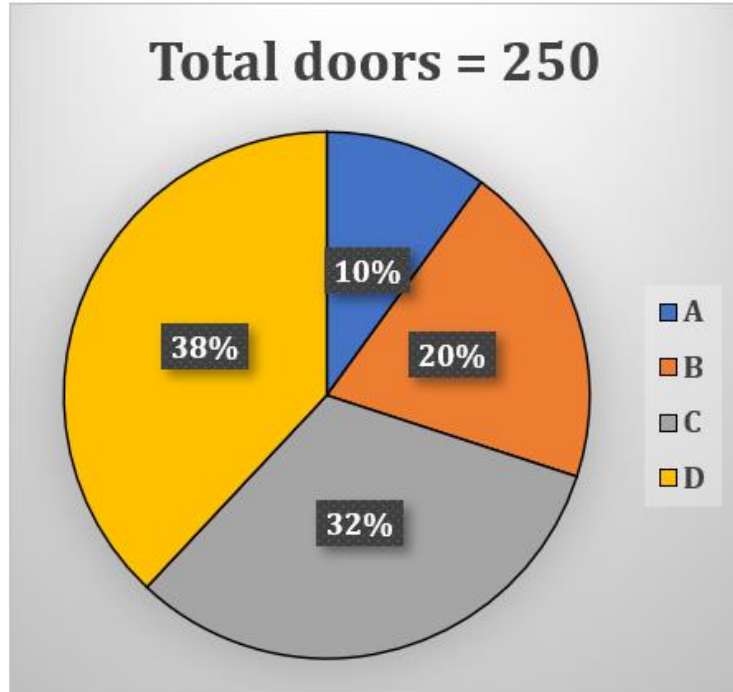
Number of males in Y in company A = $420 - 90 = 330$

Total males = $45 + 330 = 375$

Total females = $75 + 90 = 165$

Required difference = $375 - 165 = 210$

Directions (10-14): Read the following pie chart carefully and answer the questions given below. The pie chart shows the percentage distribution of total doors manufactured by four different companies.



Q10. Find the ratio of total doors manufactured by B to D.

- (a) 10:19
- (b) 19:10
- (c) 11:18
- (d) 18:13
- (e) 13:15

Ans.(a)

Required ratio = 20% : 38%
= 20 : 38
= 10 : 19

Q11. Find the average number of doors manufactured by A and D.

- (a) 70
- (b) 50
- (c) 60
- (d) 30
- (e) 80

Ans.(c)

Required average = $(250/100) \times (10 + 38) / 2 = 60$

Q12. Find the difference between the total doors manufactured by C and B.

- (a) 10
- (b) 20
- (c) 30
- (d) 40
- (e) 50

Ans.(c)

$$\text{Required difference} = (250/100) \times (32 - 20) = 30$$

Q13. If the total doors manufactured by E are $\frac{7}{5}$ that of B, then find the total doors manufactured by E and A together.

- (a) 120
- (b) 105
- (c) 75
- (d) 50
- (e) 95

Ans.(e)

$$\text{Total doors manufactured by E} = (\frac{7}{5}) \times (250/100) \times 20 = 70$$

$$\begin{aligned} \text{Required sum} &= 70 + (250 \times 10/100) \\ &= 70 + 25 \\ &= 95 \end{aligned}$$

Q14. . The total doors manufactured by C is what percentage of the total doors manufactured by B?

- (a) 190%
- (b) 160%
- (c) 60%
- (d) 90%
- (e) 110%

Ans.(b)

$$\text{Required percentage} = (32 / 20) \times 100 = 160\%$$

Directions (15-18): Read the information and answer the following questions.

The data given below shows the number of products manufactured by two companies TechPro and Innova in three plants X, Y and Z.

Innova manufactured 50% more products than TechPro in Plant X. Products manufactured by TechPro in Plant Y are 40 more than products manufactured by Innova in Plant X. Products manufactured by TechPro in Plant Z are twice those in Plant X. The ratio of products manufactured by Innova in Plant Y to Plant Z is 2 : 3.

Total products manufactured by TechPro = 2020.

Total products manufactured by Innova = 2100.

Q16. What is the difference between the products manufactured by Innova in plant Y and TechPro in plant Z?

- (a) 305
- (b) 312
- (c) 304
- (d) 319
- (e) None of these

Ans.(c)

Let products manufactured by TechPro in Plant X be a

Products manufactured by Innova in Plant X = $(150/100) \times a = 1.5a$

Products manufactured by TechPro in Plant Y = $1.5a + 40$

Products manufactured by TechPro in Plant Z = $2a$

Given:

$$2020 = 1.5a + 40 + 2a + a$$

$$2020 = 4.5a + 40$$

$$1980 = 4.5a$$

$$a = 440$$

Products manufactured by Innova in Plant X = $1.5a = 1.5 \times 440 = 660$

Products manufactured by Innova in Plant Y and Plant Z together = $2100 - 660 = 1440$

Products manufactured by Innova in Plant Y = $(2/5) \times 1440 = 576$

Products manufactured by Innova in Plant Z = $1440 - 576 = 864$

Companies	Products manufactured in Plant X	Products manufactured in Plant Y	Products manufactured in Plant Z	Total Products manufactured
TechPro	440	700	880	2020
Innova	660	576	864	2100

Required difference = $880 - 576 = 304$

Q17. The products manufactured by Innova in plant X are what percentage of the products manufactured by TechPro in plant Y (approx.)?

- (a) 87%
- (b) 91%
- (c) 94%
- (d) 83%
- (e) 77%

Ans.(c)

Let products manufactured by TechPro in Plant X be a

Products manufactured by Innova in Plant X = $(150/100) \times a = 1.5a$

Products manufactured by TechPro in Plant Y = $1.5a + 40$

Products manufactured by TechPro in Plant Z = $2a$

Given:

$$2020 = 1.5a + 40 + 2a + a$$

$$2020 = 4.5a + 40$$

$$1980 = 4.5a$$

$$a = 440$$

Products manufactured by Innova in Plant X = $1.5a = 1.5 \times 440 = 660$

Products manufactured by Innova in Plant Y and Plant Z together = $2100 - 660 = 1440$

Products manufactured by Innova in Plant Y = $(2/5) \times 1440 = 576$

Products manufactured by Innova in Plant Z = $1440 - 576 = 864$

Companies	Products manufactured in Plant X	Products manufactured in Plant Y	Products manufactured in Plant Z	Total Products manufactured
TechPro	440	700	880	2020
Innova	660	576	864	2100

$$\text{Required percentage} = (660 / 700) \times 100 = 94.28\% \approx 94\%$$

Q18. . The products manufactured by TechPro in Plant P are half of the products manufactured by Innova in Plant Z. Find the sum of the products manufactured by TechPro in Plant P and Plant Y.

- (a) 1032
- (b) 1132
- (c) 1323
- (d) 1333
- (e) 1223

Ans.(b)

Let products manufactured by TechPro in Plant X be a

Products manufactured by Innova in Plant X = $(150/100) \times a = 1.5a$

Products manufactured by TechPro in Plant Y = $1.5a + 40$

Products manufactured by TechPro in Plant Z = $2a$

Given:

$$2020 = 1.5a + 40 + 2a + a$$

$$2020 = 4.5a + 40$$

$$1980 = 4.5a$$

$$a = 440$$

Products manufactured by Innova in Plant X = $1.5a = 1.5 \times 440 = 660$

Products manufactured by Innova in Plant Y and Plant Z together = $2100 - 660 = 1440$

Products manufactured by Innova in Plant Y = $(2/5) \times 1440 = 576$

Products manufactured by Innova in Plant Z = $1440 - 576 = 864$

Companies	Products manufactured in Plant X	Products manufactured in Plant Y	Products manufactured in Plant Z	Total Products manufactured
TechPro	440	700	880	2020
Innova	660	576	864	2100

Products manufactured by TechPro in Plant P = $864 \div 2 = 432$

Required sum = $432 + 700 = 1132$

Q15. What is the ratio of total products manufactured by TechPro in Plants Y and Z together to total products manufactured by Innova in Plants X and Y together?

- (a) 395 : 309
- (b) 303: 125
- (c) 313:219
- (d) 119 : 225
- (e) 213 : 403

Ans.(a)

Let products manufactured by TechPro in Plant X be a

Products manufactured by Innova in Plant X = $(150/100) \times a = 1.5a$

Products manufactured by TechPro in Plant Y = $1.5a + 40$

Products manufactured by TechPro in Plant Z = $2a$

Given:

$$2020 = 1.5a + 40 + 2a + a$$

$$2020 = 4.5a + 40$$

$$1980 = 4.5a$$

$$a = 440$$

Products manufactured by Innova in Plant X = $1.5a = 1.5 \times 440 = 660$

Products manufactured by Innova in Plant Y and Plant Z together = $2100 - 660 = 1440$

Products manufactured by Innova in Plant Y = $(2/5) \times 1440 = 576$

Products manufactured by Innova in Plant Z = $1440 - 576 = 864$

Companies	Products manufactured in Plant X	Products manufactured in Plant Y	Products manufactured in Plant Z	Total Products manufactured
TechPro	440	700	880	2020
Innova	660	576	864	2100

$$\text{Required ratio} = (700 + 880) : (660 + 576)$$

$$= 1580 : 1236$$

$$395 : 309$$

Directions (19-23): Read the following table carefully and answer the questions given below. The table given below shows the number of mobile phones sold by four shops P, Q, R and S in the months of March and April.

Shops	March	April
P	180	240
Q	210	260
R	195	170
S	160	140

Q19. What is the difference between the total mobile phones sold by Shop P and Shop R in both months together?

- (a) 55
- (b) 40
- (c) 50
- (d) 35
- (e) 60

Ans.(a)

$$\begin{aligned} \text{Required difference} &= (180 + 240) - (195 + 170) \\ &= 420 - 365 = 55 \end{aligned}$$

Q20. What is the average number of mobile phones sold by Shop S in March and April?

- (a) 140
- (b) 150
- (c) 155
- (d) 135
- (e) 160

Ans.(b)

$$\begin{aligned} \text{Required average} &= (160 + 140) \div 2 \\ &= 300 \div 2 \\ &= 150 \end{aligned}$$

Q21. What is the ratio of mobile phones sold by Shop P in April to Shop R in March?

- (a) 16 : 13
- (b) 24 : 19
- (c) 12 : 11
- (d) 18 : 13
- (e) 24 : 17

Ans.(a)

$$\begin{aligned} \text{Required ratio} &= 240 : 195 \\ &= 16 : 13 \end{aligned}$$

Q22. The number of mobile phones sold by Shop T in March is $\frac{3}{5}$ th of the number of mobile phones sold by Shop R in March. If the average number of mobile phones sold by Shop T in March and April is 112, then find the number of mobile phones sold by Shop T in April.

- (a) 92
- (b) 145
- (c) 105
- (d) 107
- (e) 160

Ans.(d)

Number of mobile phones sold by Shop T in March = $(3/5) \times 195 = 117$

The number of mobile phones sold by Shop T in March and April = $117 \times 2 = 234$

The number of mobile phones sold by Shop T in April = $234 - 117 = 117$

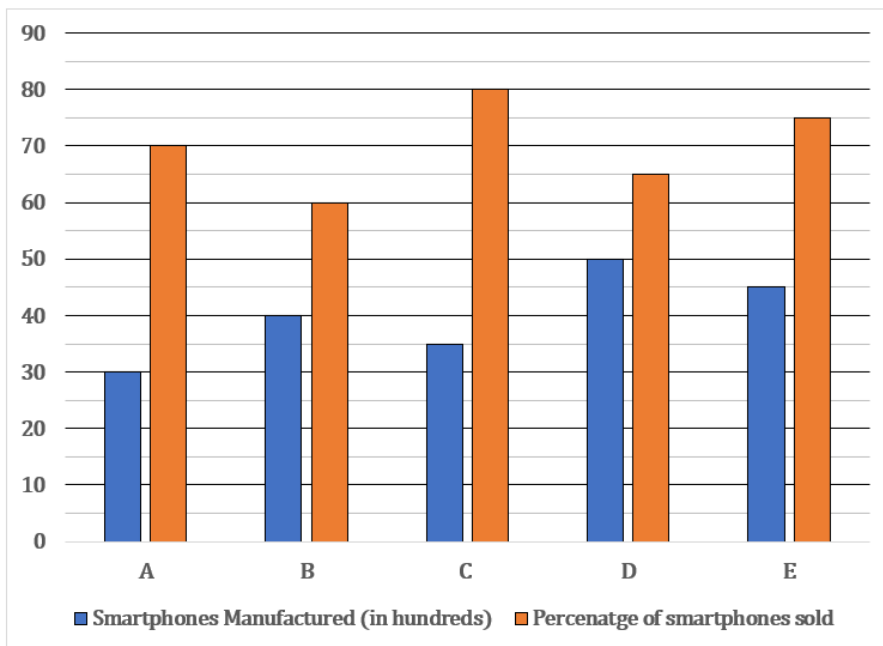
Q23. The number of mobile phones sold by Shop P in April is what percentage of the number of mobile phones sold by Shop Q in March (approx.).

- (a) 140%
- (b) 114%
- (c) 150%
- (d) 124%
- (e) 106%

Ans.(b)

Required percentage = $(240 / 210) \times 100 = 114.28\% \approx 114\%$

Directions (24-28): Read the following bar carefully and answer the questions given below. The bar graph shows the total number of smartphones manufactured (in hundreds) and the percentage of smartphones sold by five different companies A, B, C, D and E.



Q24. The total number of unsold smartphones in company B is what percentage of the total smartphones sold by company E (approx.)?

- (a) 50%
- (b) 41%
- (c) 47%
- (d) 63%
- (e) 43%

Ans.(c)

For A:

Total smartphones manufactured = 3000
 Smartphones sold = $(70/100) \times 3000 = 2100$
 Smartphones unsold = $3000 - 2100 = 900$

For B:

Total smartphones manufactured = 4000
 Smartphones sold = $(60/100) \times 4000 = 2400$
 Smartphones unsold = $4000 - 2400 = 1600$

For C:

Total smartphones manufactured = 3500
 Smartphones sold = $(80/100) \times 3500 = 2800$
 Smartphones unsold = $3500 - 2800 = 700$

For D:

Total smartphones manufactured = 5000
 Smartphones sold = $(65/100) \times 5000 = 3250$
 Smartphones unsold = $5000 - 3250 = 1750$

For E:

Total smartphones manufactured = 4500
 Smartphones sold = $(75/100) \times 4500 = 3375$
 Smartphones unsold = $4500 - 3375 = 1125$



Company	Smartphones Manufactured	Smartphones Sold	Smartphones Unsold
A	3000	2100	900
B	4000	2400	1600
C	3500	2800	700
D	5000	3250	1750
E	4500	3375	1125

Required percentage = $(1600 / 3375) \times 100 = 47.4\% \approx 47\%$

Q25. Find the ratio of the total smartphones manufactured by companies A and D together to the total unsold smartphones in companies C and E together.

- (a) 10 : 3
- (b) 9 : 4
- (c) 11 : 5
- (d) 8 : 3
- (e) None of these

Ans.(e)

For A:

Total smartphones manufactured = 3000
 Smartphones sold = $(70/100) \times 3000 = 2100$
 Smartphones unsold = $3000 - 2100 = 900$

For B:

Total smartphones manufactured = 4000
 Smartphones sold = $(60/100) \times 4000 = 2400$
 Smartphones unsold = $4000 - 2400 = 1600$

For C:

Total smartphones manufactured = 3500
 Smartphones sold = $(80/100) \times 3500 = 2800$
 Smartphones unsold = $3500 - 2800 = 700$

For D:

Total smartphones manufactured = 5000
 Smartphones sold = $(65/100) \times 5000 = 3250$
 Smartphones unsold = $5000 - 3250 = 1750$

For E:

Total smartphones manufactured = 4500
 Smartphones sold = $(75/100) \times 4500 = 3375$
 Smartphones unsold = $4500 - 3375 = 1125$

Company	Smartphones Manufactured	Smartphones Sold	Smartphones Unsold
A	3000	2100	900
B	4000	2400	1600
C	3500	2800	700
D	5000	3250	1750
E	4500	3375	1125

Required ratio = $(3000 + 5000) : (700 + 1125)$
 $= 8000 : 1825$
 $= 320 : 73$

Q26. The total smartphones manufactured by company F is 20% more than company B. If the number of unsold smartphones in companies F and C is in the ratio 3 : 7, find the total smartphones sold by companies A and F together.

- (a) 4050
- (b) 3950
- (c) 4150
- (d) 4250
- (e) 6600

Ans.(e)

For A:

Total smartphones manufactured = 3000
 Smartphones sold = $(70/100) \times 3000 = 2100$
 Smartphones unsold = $3000 - 2100 = 900$

For B:

Total smartphones manufactured = 4000
 Smartphones sold = $(60/100) \times 4000 = 2400$
 Smartphones unsold = $4000 - 2400 = 1600$

For C:

Total smartphones manufactured = 3500
 Smartphones sold = $(80/100) \times 3500 = 2800$
 Smartphones unsold = $3500 - 2800 = 700$

For D:

Total smartphones manufactured = 5000
 Smartphones sold = $(65/100) \times 5000 = 3250$
 Smartphones unsold = $5000 - 3250 = 1750$

For E:

Total smartphones manufactured = 4500
 Smartphones sold = $(75/100) \times 4500 = 3375$
 Smartphones unsold = $4500 - 3375 = 1125$

Company	Smartphones Manufactured	Smartphones Sold	Smartphones Unsold
A	3000	2100	900
B	4000	2400	1600
C	3500	2800	700
D	5000	3250	1750
E	4500	3375	1125

Total smartphones manufactured by company F = $(120/100) \times 4000 = 4800$

Number of unsold smartphones in company F = $(3/7) \times 700 = 300$

Number of smartphones sold in company F = $4800 - 300 = 4500$

Required sum = $4500 + 2100 = 6600$

Q27. 40% of the total smartphones manufactured by company D are premium models, and the rest are standard models. If $3/5$ of the total smartphones sold are premium models, find the number of unsold standard models in company D.

- (a) 1050
- (b) 950
- (c) 1200
- (d) 1700
- (e) 900

Ans.(d)

For A:

Total smartphones manufactured = 3000
 Smartphones sold = $(70/100) \times 3000 = 2100$
 Smartphones unsold = $3000 - 2100 = 900$

For B:

Total smartphones manufactured = 4000
 Smartphones sold = $(60/100) \times 4000 = 2400$
 Smartphones unsold = $4000 - 2400 = 1600$

For C:

Total smartphones manufactured = 3500
 Smartphones sold = $(80/100) \times 3500 = 2800$
 Smartphones unsold = $3500 - 2800 = 700$

For D:

Total smartphones manufactured = 5000
 Smartphones sold = $(65/100) \times 5000 = 3250$
 Smartphones unsold = $5000 - 3250 = 1750$

For E:

Total smartphones manufactured = 4500
 Smartphones sold = $(75/100) \times 4500 = 3375$
 Smartphones unsold = $4500 - 3375 = 1125$

Company	Smartphones Manufactured	Smartphones Sold	Smartphones Unsold
A	3000	2100	900
B	4000	2400	1600
C	3500	2800	700
D	5000	3250	1750
E	4500	3375	1125

Premium model smartphones manufactured by company D = $(40/100) \times 5000 = 2000$
 Standard model smartphones manufactured by company D = $5000 - 2000 = 3000$
 Premium model smartphones sold by company D = $(3/5) \times 3250 = 1950$
 Standard model smartphones sold by company D = $3250 - 1950 = 1300$
 Number of unsold standard model smartphones in company D = $3000 - 1300 = 1700$

Q28. Find the difference between the total number of unsold smartphones in companies B and D together and the total smartphones sold by companies C and E together.

- (a) 2650
- (b) 2825
- (c) 2550
- (d) 2750
- (e) 2350

Ans.(b)

For A:

Total smartphones manufactured = 3000
 Smartphones sold = $(70/100) \times 3000 = 2100$
 Smartphones unsold = $3000 - 2100 = 900$

For B:

Total smartphones manufactured = 4000
 Smartphones sold = $(60/100) \times 4000 = 2400$
 Smartphones unsold = $4000 - 2400 = 1600$

For C:

Total smartphones manufactured = 3500

Smartphones sold = $(80/100) \times 3500 = 2800$

Smartphones unsold = $3500 - 2800 = 700$

For D:

Total smartphones manufactured = 5000

Smartphones sold = $(65/100) \times 5000 = 3250$

Smartphones unsold = $5000 - 3250 = 1750$

For E:

Total smartphones manufactured = 4500

Smartphones sold = $(75/100) \times 4500 = 3375$

Smartphones unsold = $4500 - 3375 = 1125$

Company	Smartphones Manufactured	Smartphones Sold	Smartphones Unsold
A	3000	2100	900
B	4000	2400	1600
C	3500	2800	700
D	5000	3250	1750
E	4500	3375	1125

Total number of unsold smartphones in companies B and D together = $1600 + 1750 = 3350$

Total smartphones sold by companies C and E together = $2800 + 3375 = 6175$

Required difference = $6175 - 3350 = 2825$

Directions (29-33): Read the following table carefully and answer the questions given below. The table shows the number of bedsheets and number of pillows sold by four different shops.

Shops	Bedsheets Sold	Pillows Sold
A	450	300
B	520	280
C	610	350
D	480	420

Q32. If the total bedsheets sold by E is 25% more than the total pillows sold by B, then find the total bedsheets sold by E.

- (a) 320
- (b) 340
- (c) 350
- (d) 310
- (e) 300

Ans.(c)

Total bedsheets sold by E = $(125/100) \times 280 = 350$

Q33. Find the average number of pillows sold by A and C.

- (a) 315
- (b) 325
- (c) 310
- (d) 318
- (e) 320

Ans.(b)

Required average = $(300 + 350) \div 2 = 325$

Q29. What is the difference between bedsheets sold by B and D?

- (a) 25
- (b) 40
- (c) 60
- (d) 30
- (e) 15

Ans.(b)

Required difference = $520 - 480 = 40$

Q30. The total pillows sold by Shop A is what percentage of the total bedsheets sold by D?

- (a) 62.5%
- (b) 37.5%
- (c) 32.5%
- (d) 50%
- (e) 87.5%

Ans.(a)

Required percentage = $(300 / 480) \times 100 = 62.5\%$

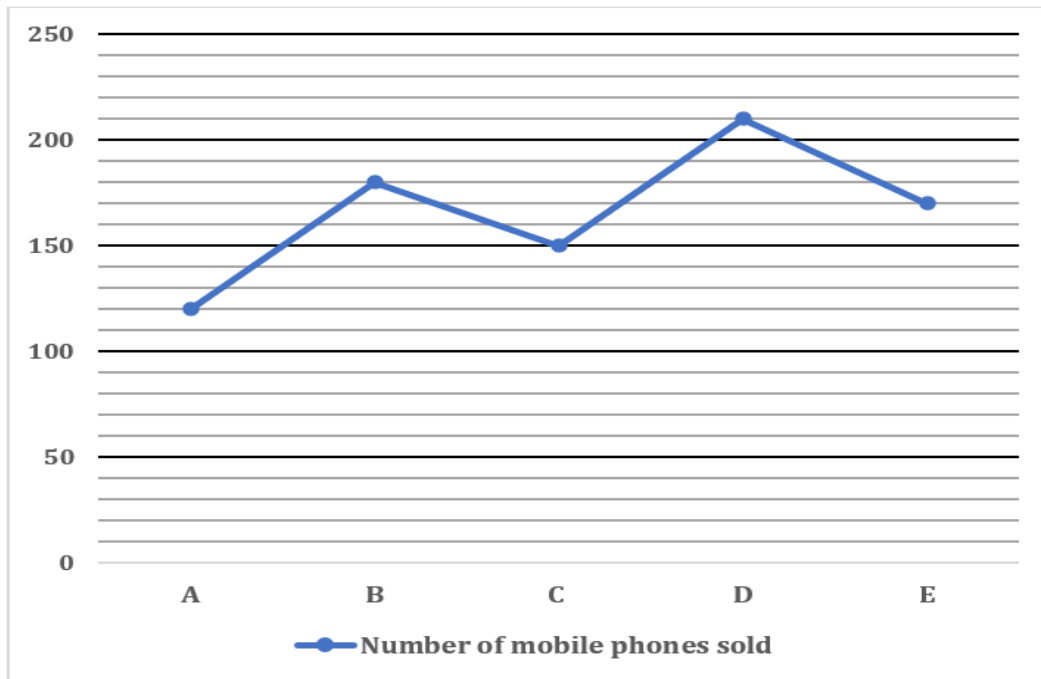
Q31. What is the ratio of bedsheets sold by B to pillows sold by C?

- (a) 33:56
- (b) 35:52
- (c) 52:35
- (d) 56:33
- (e) None of these

Ans.(c)

Required ratio = $520 : 350$
 $= 52 : 35$

Directions (34-38): Read the following line graph carefully and answer the questions given below. The line graph shows the number of mobile phones sold in five different shops A, B, C, D, and E in a week.



Q34. How many mobile phones were sold by Shop C and Shop E together?

- (a) 340
- (b) 320
- (c) 330
- (d) 300
- (e) 350

Ans.(b)

Required sum = $150 + 170 = 320$

Q35. How many more phones were sold by Shop D than Shop A?

- (a) 90
- (b) 80
- (c) 10
- (d) 40
- (e) 50

Ans.(a)

Required difference = $210 - 120 = 90$

Q36. What is the average number of mobile phones sold by the five shops?

- (a) 168
- (b) 172
- (c) 184
- (d) 166
- (e) 176

Ans.(d)

Required average = $(120 + 180 + 150 + 210 + 170) \div 5 = 166$

Q37. The number of mobiles phones sold by C is what percentage of the number of mobiles phones sold by D (approx.)?

- (a) 84%
- (b) 79%
- (c) 71%
- (d) 59%
- (e) 63%

Ans.(c)

Required percentage = $(150 / 210) \times 100 = 71.4\% \approx 71\%$

Q38. . Find the ratio of the number of mobiles phones sold by A to that of B.

- (a) 1:3
- (b) 3:2
- (c) 2:3
- (d) 3:1
- (e) 3:5

Ans.(c)

Required ratio = 120 : 180

= 2:3

Directions (39-43): Read the following information carefully and answer the questions given below.

The information is about the staff (Clerks and Officers) in three branches (X, Y, and Z) of a bank.

For Branch X – the total number of clerks and officers is 90.

For Branch Y – the total number of clerks is 8 more than the total number of clerks in Branch Z.

For Branch Z – the total number of clerks is 10 less than the total number of officers.

Note:

I: The total number of officers in Branch X is 36 less than the total number of clerks in Branch Y.

II: The total staff in Branch Z is 30 more than that in Branch X.

III: The total number of officers in all three branches together is 120.

Q39. What is the ratio of clerks to officers in Branch X?

- (a) 7:3
- (b) 3:5
- (c) 5:7
- (d) 7:2
- (e) 2:9

Ans.(a)

Let total number of officers in Z be P

Total number of clerks in Z = P - 10

Total number of clerks in Y = P - 10 + 8 = P - 2

Total number of officers in X = $P - 2 - 36 = P - 38$

Total number of clerks in X = $90 - (P - 38)$

= $128 - P$

The total staff in Z = $90 + 30 = 120$

Given, $120 = P - 10 + P$

$130 = 2P$

$65 = P$

Total number of officers in Y = $120 - (P - 38 + 65)$

= $120 - (P + 27)$

= $120 - P - 27$

= $93 - P$

= $93 - 65$

= 28

Branch	Clerks	Officers	Total staff
X	63	27	90
Y	63	28	91
Z	55	65	120

Required ratio = $63 : 27$

= $7 : 3$

Q40. What is the difference between the total staff of Branch Z and Branch Y?

(a) 29

(b) 28

(c) 23

(d) 21

(e) 26

Ans.(a)

Let total number of officers in Z be P

Total number of clerks in Z = $P - 10$

Total number of clerks in Y = $P - 10 + 8 = P - 2$

Total number of officers in X = $P - 2 - 36 = P - 38$

Total number of clerks in X = $90 - (P - 38)$

= $128 - P$

The total staff in Z = $90 + 30 = 120$

Given, $120 = P - 10 + P$

$130 = 2P$

$65 = P$

Total number of officers in Y = $120 - (P - 38 + 65)$

= $120 - (P + 27)$

= $120 - P - 27$

= $93 - P$

= $93 - 65$

= 28

Branch	Clerks	Officers	Total staff
X	63	27	90
Y	63	28	91
Z	55	65	120

Required difference = $120 - 91 = 29$

Q41. The total number of clerks in Branches X and Y together is what percent of the total staff in Branch Z?

- (a) 100%
- (b) 105%
- (c) 90%
- (d) 120%
- (e) 125%

Ans.(b)

Let total number of officers in Z be P

Total number of clerks in Z = $P - 10$

Total number of clerks in Y = $P - 10 + 8 = P - 2$

Total number of officers in X = $P - 2 - 36 = P - 38$

Total number of clerks in X = $90 - (P - 38)$

= $128 - P$

The total staff in Z = $90 + 30 = 120$

Given, $120 = P - 10 + P$

$130 = 2P$

$65 = P$

Total number of officers in Y = $120 - (P - 38 + 65)$

= $120 - (P + 27)$

= $120 - P - 27$

= $93 - P$

= $93 - 65$

= 28

Branch	Clerks	Officers	Total staff
X	63	27	90
Y	63	28	91
Z	55	65	120

Required percentage = $((63 + 63) / 120) \times 100 = 105\%$

Q42. If 10 officers leave Branch Z and join Branch X, what will be the total staff of Branch X after the transfer?

- (a) 80
- (b) 90
- (c) 120
- (d) 100
- (e) 125

Ans.(d)

Let total number of officers in Z be P

Total number of clerks in Z = P - 10

Total number of clerks in Y = P - 10 + 8 = P - 2

Total number of officers in X = P - 2 - 36 = P - 38

Total number of clerks in X = 90 - (P - 38)

= 128 - P

The total staff in Z = 90 + 30 = 120

Given, 120 = P - 10 + P

130 = 2P

65 = P

Total number of officers in Y = 120 - (P - 38 + 65)

= 120 - (P + 27)

= 120 - P - 27

= 93 - P

= 93 - 65

= 28

Branch	Clerks	Officers	Total staff
X	63	27	90
Y	63	28	91
Z	55	65	120

Original staff in X = 90

10 officers join X

New total staff in X = 90 + 10 = 100

Q43. If the total staff in branch T is the average of the total staff in branches X and Z and the total clerks in Z is 10% more than that of T, then find the total officers in branch T.

(a) 55

(b) 40

(c) 60

(d) 30

(e) 80

Ans.(a)

Let total number of officers in Z be P

Total number of clerks in Z = P - 10

Total number of clerks in Y = P - 10 + 8 = P - 2

Total number of officers in X = P - 2 - 36 = P - 38

Total number of clerks in X = 90 - (P - 38)

= 128 - P

The total staff in Z = 90 + 30 = 120

Given, 120 = P - 10 + P

$$130 = 2P$$

$$65 = P$$

$$\text{Total number of officers in Y} = 120 - (P - 38 + 65)$$

$$= 120 - (P + 27)$$

$$= 120 - P - 27$$

$$= 93 - P$$

$$= 93 - 65$$

$$= 28$$

Branch	Clerks	Officers	Total staff
X	63	27	90
Y	63	28	91
Z	55	65	120

$$\text{Total staff in branch T} = (90 + 120) \div 2 = 105$$

$$\text{Total clerks in branch T} = 55 \times (100/110) = 50$$

$$\text{Total officers in branch T} = 105 - 50 = 55$$

Directions (44-48): Read the following information carefully and answer the questions given below. The information is about three cars A, B, and C that travelled distances in City, Highway, and Village roads in a Month.

City Road: The distance travelled by A is 240 km, and the ratio of the distance travelled by B to C is 3 : 4, respectively.

Highway: The distance travelled by B is 25% more than the distance travelled by A on City Road. The distance travelled by A is 20% more than the distance travelled by C on City Road. The distance travelled by C is 50 km less than that of A.

Village Road: The distance travelled by C is 360 km, and the average distance travelled by all three cars is 284 km.

Note: The total distance travelled by B on all three roads is 720 km, and the average distance travelled by A on all three roads is 260 km.

Q48. . If the distance car D travelled on the city road is 10% less than the distance car B travelled on the highway road, then find the average distance travelled on the city road by car D and car A (in km).

(a) 260

(b) 240

(c) 255

(d) 275

(e) 290

Ans.(c)

City Road:

Distance travelled by A = 240 km

Let distance travelled by B and C be 3x and 4x respectively

Highway:

Distance travelled by B = $(125/100) \times 240 = 300$ km

Distance travelled by A = $(120/100) \times 4x = 4.8x$ km

Distance travelled by C = $(4.8x - 50)$ km

Village Road:

Distance travelled by C = 360 km

Total distance travelled by all three cars = $284 \times 3 = 852$ km

Distance travelled by A and B together = $852 - 360 = 492$ km

Given:

Total distance travelled by B on all three roads = 720 km

Distance travelled by B on Village Road = $720 - (300 + 3x)$

= $420 - 3x$

Average distance travelled by A on all three roads = 260 km

Total distance travelled by A on all three roads = $260 \times 3 = 780$ km

Distance travelled by A on Village Road = $780 - (4.8x + 240)$

= $540 - 4.8x$

According to the question:

$(540 - 4.8x) + (420 - 3x) = 492$

$960 - 7.8x = 492$

$468 = 7.8x$

$x = 60$

Cars	City Road (in km)	Highway Road (in km)	Village Road (in km)	Total Distance (in km)
A	240	288	252	780
B	180	300	240	720
C	240	238	360	838

Distance travelled by car D on the city road = $(90/100) \times 300 = 270$

Required average = $(270 + 240) \div 2 = 255$ km

Q44. What is the ratio of the distance travelled by A on Highway to the distance travelled by B on Village Road?

(a) 6:5

(b) 5:6

(c) 3:4

(d) 4:3

(e) 2:3

Ans.(a)

City Road:

Distance travelled by A = 240 km

Let distance travelled by B and C be $3x$ and $4x$ respectively

Highway:

Distance travelled by B = $(125/100) \times 240 = 300$ km

Distance travelled by A = $(120/100) \times 4x = 4.8x$ km

Distance travelled by C = $(4.8x - 50)$ km

Village Road:

Distance travelled by C = 360 km

Total distance travelled by all three cars = $284 \times 3 = 852$ km

Distance travelled by A and B together = $852 - 360 = 492$ km

Given:

Total distance travelled by B on all three roads = 720 km

Distance travelled by B on Village Road = $720 - (300 + 3x)$

= $420 - 3x$

Average distance travelled by A on all three roads = 260 km

Total distance travelled by A on all three roads = $260 \times 3 = 780$ km

Distance travelled by A on Village Road = $780 - (4.8x + 240)$

= $540 - 4.8x$

According to the question:

$(540 - 4.8x) + (420 - 3x) = 492$

$960 - 7.8x = 492$

$468 = 7.8x$

$x = 60$

Cars	City Road (in km)	Highway Road (in km)	Village Road (in km)	Total Distance (in km)
A	240	288	252	780
B	180	300	240	720
C	240	238	360	838

Required ratio = 288 : 240

= 6 : 5

Q45. The distance travelled by C on Highway is what percent of the distance travelled by B on Highway?

- (a) 83.25%
- (b) 79.33%
- (c) 81.75%
- (d) 80.67%
- (e) 88.14%

Ans.(b)

City Road:

Distance travelled by A = 240 km

Let distance travelled by B and C be $3x$ and $4x$ respectively

Highway:

Distance travelled by B = $(125/100) \times 240 = 300$ km

Distance travelled by A = $(120/100) \times 4x = 4.8x$ km

Distance travelled by C = $(4.8x - 50)$ km

Village Road:

Distance travelled by C = 360 km

Total distance travelled by all three cars = $284 \times 3 = 852$ km
 Distance travelled by A and B together = $852 - 360 = 492$ km

Given:

Total distance travelled by B on all three roads = 720 km

Distance travelled by B on Village Road = $720 - (300 + 3x)$
 $= 420 - 3x$

Average distance travelled by A on all three roads = 260 km

Total distance travelled by A on all three roads = $260 \times 3 = 780$ km

Distance travelled by A on Village Road = $780 - (4.8x + 240)$
 $= 540 - 4.8x$

According to the question:

$$(540 - 4.8x) + (420 - 3x) = 492$$

$$960 - 7.8x = 492$$

$$468 = 7.8x$$

$$x = 60$$

Cars	City Road (in km)	Highway Road (in km)	Village Road (in km)	Total Distance (in km)
A	240	288	252	780
B	180	300	240	720
C	240	238	360	838

$$\text{Required percentage} = (238 / 300) \times 100 = 79.33\%$$

Q46. What is the difference between the total distance travelled by A and C on all three roads (in km)?

- (a) 65
- (b) 42
- (c) 53
- (d) 45
- (e) 58

Ans.(e)

City Road:

Distance travelled by A = 240 km

Let distance travelled by B and C be $3x$ and $4x$ respectively

Highway:

Distance travelled by B = $(125/100) \times 240 = 300$ km

Distance travelled by A = $(120/100) \times 4x = 4.8x$ km

Distance travelled by C = $(4.8x - 50)$ km

Village Road:

Distance travelled by C = 360 km

Total distance travelled by all three cars = $284 \times 3 = 852$ km

Distance travelled by A and B together = $852 - 360 = 492$ km

Given:

Total distance travelled by B on all three roads = 720 km

$$\begin{aligned} \text{Distance travelled by B on Village Road} &= 720 - (300 + 3x) \\ &= 420 - 3x \end{aligned}$$

Average distance travelled by A on all three roads = 260 km

Total distance travelled by A on all three roads = $260 \times 3 = 780$ km

$$\begin{aligned} \text{Distance travelled by A on Village Road} &= 780 - (4.8x + 240) \\ &= 540 - 4.8x \end{aligned}$$

According to the question:

$$(540 - 4.8x) + (420 - 3x) = 492$$

$$960 - 7.8x = 492$$

$$468 = 7.8x$$

$$x = 60$$

Cars	City Road (in km)	Highway Road (in km)	Village Road (in km)	Total Distance (in km)
A	240	288	252	780
B	180	300	240	720
C	240	238	360	838

$$\text{Required difference} = 838 - 780 = 58 \text{ km}$$

Q47. The distance travelled by C on Village Road is how much more than the average distance travelled by A on City and Highway roads together (in km)?

- (a) 120
- (b) 80
- (c) 96
- (d) 75
- (e) 88

Ans.(c)

City Road:

Distance travelled by A = 240 km

Let distance travelled by B and C be $3x$ and $4x$ respectively

Highway:

Distance travelled by B = $(125/100) \times 240 = 300$ km

Distance travelled by A = $(120/100) \times 4x = 4.8x$ km

Distance travelled by C = $(4.8x - 50)$ km

Village Road:

Distance travelled by C = 360 km

Total distance travelled by all three cars = $284 \times 3 = 852$ km

Distance travelled by A and B together = $852 - 360 = 492$ km

Given:

Total distance travelled by B on all three roads = 720 km

$$\begin{aligned} \text{Distance travelled by B on Village Road} &= 720 - (300 + 3x) \\ &= 420 - 3x \end{aligned}$$

Average distance travelled by A on all three roads = 260 km

Total distance travelled by A on all three roads = $260 \times 3 = 780$ km

Distance travelled by A on Village Road = $780 - (4.8x + 240)$

$$= 540 - 4.8x$$

According to the question:

$$(540 - 4.8x) + (420 - 3x) = 492$$

$$960 - 7.8x = 492$$

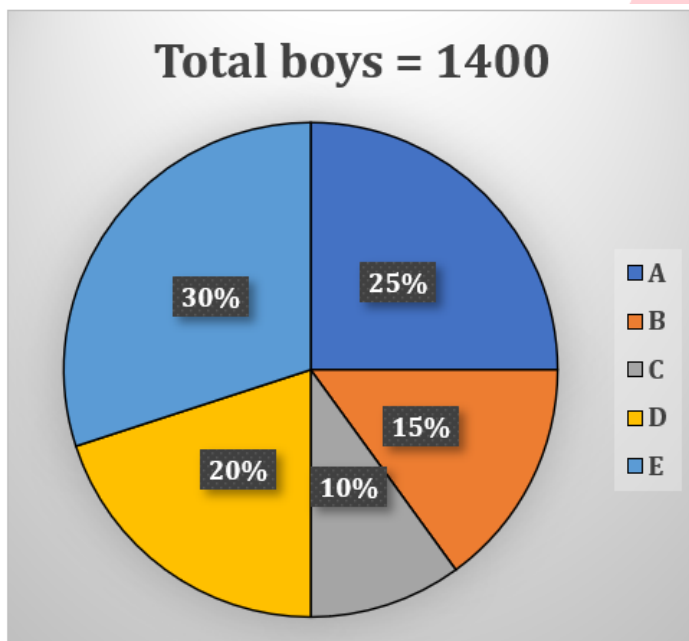
$$468 = 7.8x$$

$$x = 60$$

Cars	City Road (in km)	Highway Road (in km)	Village Road (in km)	Total Distance (in km)
A	240	288	252	780
B	180	300	240	720
C	240	238	360	838

Average distance travelled by A on City and Highway roads = $(240 + 288) \div 2 = 264$ Required difference = $360 - 264 = 96$ km

Directions (49-54): Read the following pie chart carefully and answer the questions given below. The pie chart shows the percentage distribution of the total number of students in five different colleges.



Q49. Find the difference between the number of boys in A and that of E.

- (a) 70
- (b) 50
- (c) 60
- (d) 40
- (e) 90

Ans.(a)

$$\text{Required difference} = 1400 \times (30 - 25) / 100 = 70$$

Q50. Find the average number of boys in B and D.

- (a) 210
- (b) 250
- (c) 245
- (d) 215
- (e) 220

Ans.(c)

$$\text{Required average} = (1400 / 100) \times (15 + 20) \div 2 = 245$$

Q51. The number of boys in C is what percentage of the number of boys in B?

- (a) 66.67%
- (b) 33.33%
- (c) 8.33%
- (d) 14.28%
- (e) 15%

Ans.(a)

$$\text{Required percentage} = (10\% / 15\%) \times 100 = 66.67\%$$

Q52. The ratio of the number of boys to girls in D is 7:5, respectively. Find the number of girls in D.

- (a) 220
- (b) 210
- (c) 200
- (d) 250
- (e) 240

Ans.(c)

$$\text{Number of boys in D} = (1400 / 100) \times 20 = 280$$

$$\text{Number of girls in D} = (5/7) \times 280 = 200$$

Q53. If the number of boys in F is the average number of boys in C and E, then find the number of boys in F and A.

- (a) 240
- (b) 210
- (c) 280
- (d) 230
- (e) 290

Ans.(c)

$$\text{Number of boys in F} = (1400 / 100) \times (10 + 30) \div 2 = 280$$

Q54. . If 10% of boys in A and $\frac{2}{7}$ of boys in C failed in the annual exam, then find the number of boys who passed in A and C together.

- (a) 580
- (b) 460
- (c) 350
- (d) 415
- (e) 220

Ans.(d)

Number of boys in A = $(\frac{25}{100}) \times 1400 = 350$

Number of boys who passed in A = $(\frac{90}{100}) \times 350 = 315$

Number of boys in C = $(\frac{10}{100}) \times 1400 = 140$

Number of boys who passed in C = $(\frac{5}{7}) \times 140 = 100$

Required sum = $315 + 100 = 415$

Directions (55-59): Read the following table carefully and answer the questions given below. The table shows the total number of students and percentage of boys out of total number of students in four different schools.

Schools	Total students	Percentage of boys
A	250	60%
B	180	40%
C	200	55%
D	340	50%

Q55. Find the total number of girls in all four schools together.

- (a) 468
- (b) 552
- (c) 580
- (d) 430
- (e) 450

Ans.(a)

School A

Boys = 60% of 250 = $(\frac{60}{100}) \times 250 = 150$

Girls = $250 - 150 = 100$

School B

Boys = 40% of 180 = $(\frac{40}{100}) \times 180 = 72$

Girls = $180 - 72 = 108$

School C

Boys = 55% of 200 = $(\frac{55}{100}) \times 200 = 110$

Girls = $200 - 110 = 90$

School D

Boys = 50% of 340 = $(\frac{50}{100}) \times 340 = 170$

Girls = $340 - 170 = 170$



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Required sum = $100 + 108 + 90 + 170 = 468$

Q56. What is the difference between the number of boys in School D and School C?

- (a) 50
- (b) 40
- (c) 60
- (d) 70
- (e) 90

Ans.(c)

School A

$$\text{Boys} = 60\% \text{ of } 250 = (60/100) \times 250 = 150$$

$$\text{Girls} = 250 - 150 = 100$$

School B

$$\text{Boys} = 40\% \text{ of } 180 = (40/100) \times 180 = 72$$

$$\text{Girls} = 180 - 72 = 108$$

School C

$$\text{Boys} = 55\% \text{ of } 200 = (55/100) \times 200 = 110$$

$$\text{Girls} = 200 - 110 = 90$$

School D

$$\text{Boys} = 50\% \text{ of } 340 = (50/100) \times 340 = 170$$

$$\text{Girls} = 340 - 170 = 170$$

$$\text{Required difference} = 170 - 110 = 60$$

Q57. What is the ratio of boys to girls in School A?

- (a) 1:3
- (b) 2:3
- (c) 3:2
- (d) 4:3
- (e) 5:2

Ans.(c)

School A

$$\text{Boys} = 60\% \text{ of } 250 = (60/100) \times 250 = 150$$

$$\text{Girls} = 250 - 150 = 100$$

School B

$$\text{Boys} = 40\% \text{ of } 180 = (40/100) \times 180 = 72$$

$$\text{Girls} = 180 - 72 = 108$$

School C

$$\text{Boys} = 55\% \text{ of } 200 = (55/100) \times 200 = 110$$

$$\text{Girls} = 200 - 110 = 90$$

School D

$$\text{Boys} = 50\% \text{ of } 340 = (50/100) \times 340 = 170$$

$$\text{Girls} = 340 - 170 = 170$$

$$\text{Required ratio} = 150 : 100$$

$$= 3 : 2$$

Q58. The number of girls in schools C is what percentage of the number of boys in school A?

(a) 50%

(b) 45%

(c) 75%

(d) 35%

(e) 60%

Ans.(e)

School A

$$\text{Boys} = 60\% \text{ of } 250 = (60/100) \times 250 = 150$$

$$\text{Girls} = 250 - 150 = 100$$

School B

$$\text{Boys} = 40\% \text{ of } 180 = (40/100) \times 180 = 72$$

$$\text{Girls} = 180 - 72 = 108$$

School C

$$\text{Boys} = 55\% \text{ of } 200 = (55/100) \times 200 = 110$$

$$\text{Girls} = 200 - 110 = 90$$

School D

$$\text{Boys} = 50\% \text{ of } 340 = (50/100) \times 340 = 170$$

$$\text{Girls} = 340 - 170 = 170$$

$$\text{Required percentage} = (90 / 150) \times 100 = 60\%$$

Q59. Find the average number of girls in school C and boys in school B.

(a) 90

(b) 81

(c) 84

(d) 96

(e) 78

Ans.(b)

School A

$$\text{Boys} = 60\% \text{ of } 250 = (60/100) \times 250 = 150$$

$$\text{Girls} = 250 - 150 = 100$$

School B

$$\text{Boys} = 40\% \text{ of } 180 = (40/100) \times 180 = 72$$

$$\text{Girls} = 180 - 72 = 108$$

School C

$$\text{Boys} = 55\% \text{ of } 200 = (55/100) \times 200 = 110$$

$$\text{Girls} = 200 - 110 = 90$$

School D

$$\text{Boys} = 50\% \text{ of } 340 = (50/100) \times 340 = 170$$

$$\text{Girls} = 340 - 170 = 170$$

$$\text{Required average} = (90 + 72) \div 2 = 81$$

Directions (60-64): Read the following table carefully and answer the questions given below. The table below shows the number of books sold by three stores (P, Q & R) in three categories Fiction, Science and History.

Stores	Fiction	Science	History
P	90	70	60
Q	50	80	100
R	120	110	40

Q64. Find the difference between the total fiction books sold by P and total history books sold by R.

- (a) 40
- (b) 50
- (c) 30
- (d) 20
- (e) 60

Ans.(b)

$$\text{Required difference} = 90 - 40 = 50$$

Q60. Total books of fiction and science sold by R are how much more than total books of science and history sold by Q?

- (a) 50
- (b) 60
- (c) 70
- (d) 80
- (e) 90

Ans.(a)

$$\text{Total books of fiction and science sold by R} = 120 + 110 = 230$$

$$\text{Total books of science and history sold by Q} = 80 + 100 = 180$$

$$\text{Required difference} = 230 - 180 = 50$$

Q61. What is the average number of books sold by Store R?

- (a) 70
- (b) 75
- (c) 76
- (d) 80
- (e) 90

Ans.(e)

Required average = $(120 + 110 + 40) \div 3 = 90$

Q62. The total history books sold by P and Q together are what percent of the fiction books sold by R?

- (a) 133.33%
- (b) 125%
- (c) 132.5%
- (d) 166.67%
- (e) 140%

Ans.(a)

Required percentage = $((60 + 100) / 120) \times 100 = 133.33\%$

Q63. Find the ratio of the total science books sold by P to the total history books sold by Q.

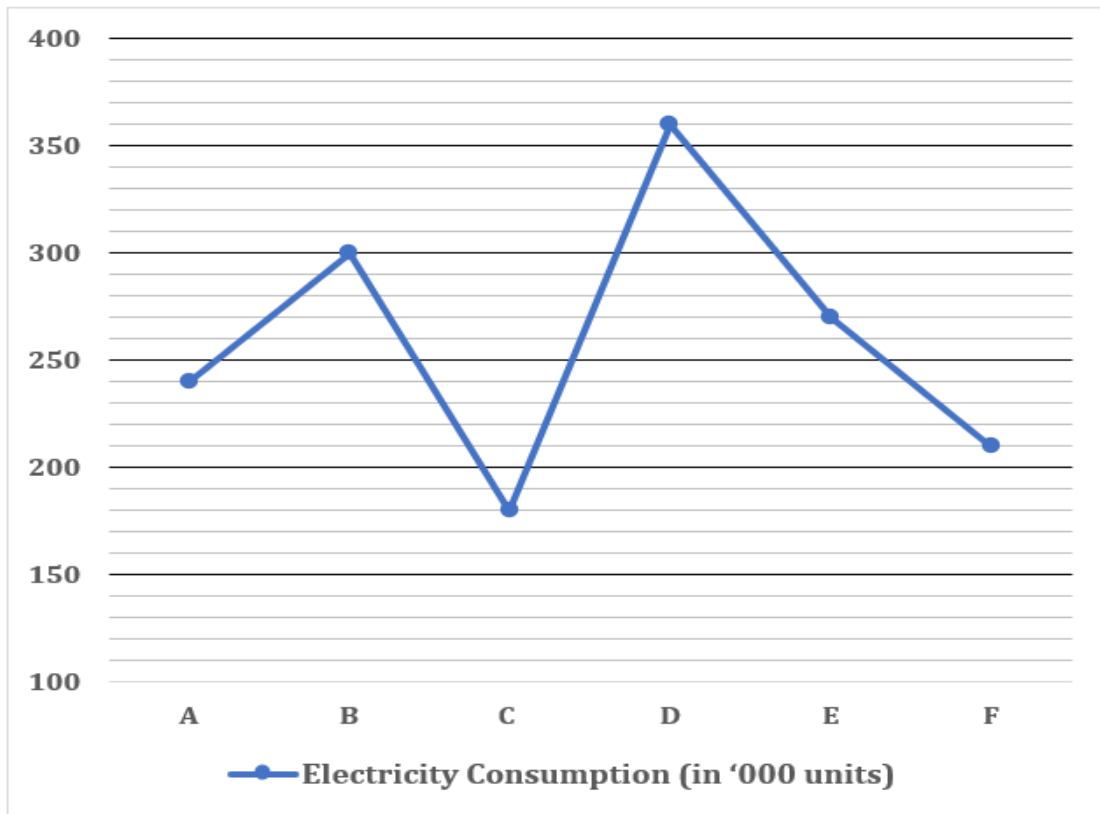
- (a) 12:19
- (b) 18:11
- (c) 11:18
- (d) 10:7
- (e) 7:10

Ans.(e)

Required ratio = $70 : 100 = 7:10$

Directions (65-69): The line graph given below shows the number of units of electricity (in thousands) consumed by six factories (A, B, C, D, E and F) in March 2025. Study the data carefully and answer the questions that follow.





Q65. What is the average electricity consumption of all six factories (in units)?

- (a) 240000
- (b) 250000
- (c) 260000
- (d) 270000
- (e) 280000

Ans.(c)

$$\text{Total} = 240000 + 300000 + 180000 + 360000 + 270000 + 210000 = 1560000$$

$$\text{Required average} = 1560000 \div 6 = 260000$$

$$= 260000 \text{ units}$$

Q66. Consumption of Factory D is how much percent more than that of Factory C?

- (a) 80%
- (b) 90%
- (c) 100%
- (d) 110%
- (e) 120%

Ans.(c)

$$\text{Required percentage} = ((360000 - 180000) / 180000) \times 100 = 100\%$$

Q67. What is the ratio of electricity consumption of Factory B to Factory E?

- (a) 7:5
- (b) 12:11
- (c) 11:12
- (d) 9:10
- (e) 10:9

Ans.(e)

Required ratio = 300000 : 270000
= 10:9

Q68. Find the difference between the electricity consumption of Factory F and that of A (in units).

- (a) 30000
- (b) 22000
- (c) 24000
- (d) 35000
- (e) 15000

Ans.(a)

Required difference = 240000 - 210000
= 30000 units

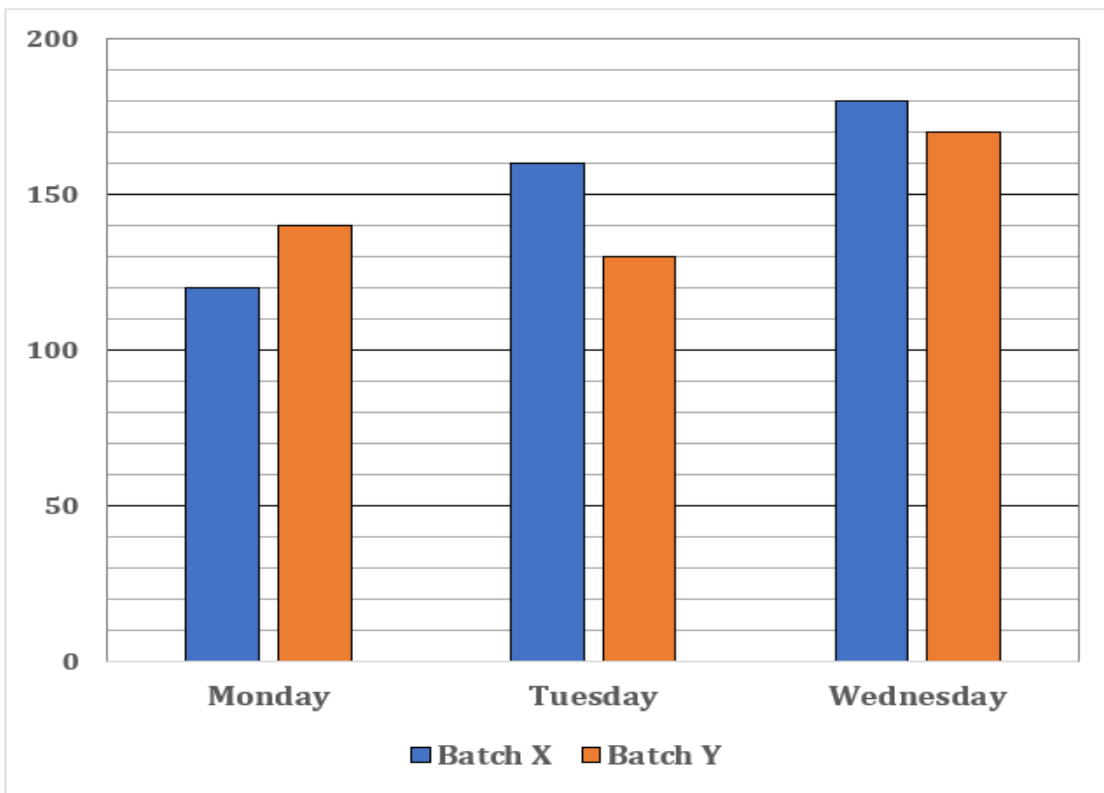
Q69. . If the electricity consumption of Factory X is average of the electricity consumption of Factories B and C, then find the sum of the electricity consumption of Factories X and E (units).

- (a) 450000
- (b) 480000
- (c) 510000
- (d) 550000
- (e) 585000

Ans.(c)

Electricity consumption of Factory X = $(300000 + 180000) \div 2 = 240000$
Required sum = 240000 + 270000
= 510000 units

Directions (70-74): Read the following bar graph carefully and answer the questions given below. The bar graph below shows the number of students attending online classes from Batch X and Batch Y on three days of a week.



Q70. What is the total number of students from both batches attending online classes on Monday?

- (a) 240
- (b) 260
- (c) 250
- (d) 270
- (e) 280

Ans.(b)

Required sum = $120 + 140 = 260$

Q71. What is the average number of students attending online classes from Batch Y Monday and Tuesday?

- (a) 150
- (b) 135
- (c) 170
- (d) 185
- (e) 145

Ans.(b)

Required average = $(140 + 130) \div 2 = 135$

Q72. What is the ratio of students attending online classes from Batch X on Tuesday to Batch Y on Wednesday?

- (a) 16 : 17
- (b) 17 : 16

- (c) 8 : 9
(d) 9 : 8
(e) 13 : 17

Ans.(a)

Required ratio = 160 : 170 = 16:17

Q73. Total attendance (Batch X + Batch Y) on Monday is what percent less than the total attendance on Wednesday (approx.)?

- (a) 14%
(b) 20%
(c) 26%
(d) 32%
(e) 10%

Ans.(c)

Total attendance (Batch X + Batch Y) on Monday = 120 + 140 = 260

Total attendance (Batch X + Batch Y) on Wednesday = 180 + 170 = 350

Required percentage = $((350 - 260) / 350) \times 100 = 25.7\% \approx 26\%$

Q74. The number of students attending online classes from Batch X on Thursday is 20% more than the number of students attending online classes from Batch Y on Wednesday. Find the difference between the number of students attending online classes from Batch X on Thursday and on Tuesday.

- (a) 55
(b) 60
(c) 44
(d) 86
(e) 15

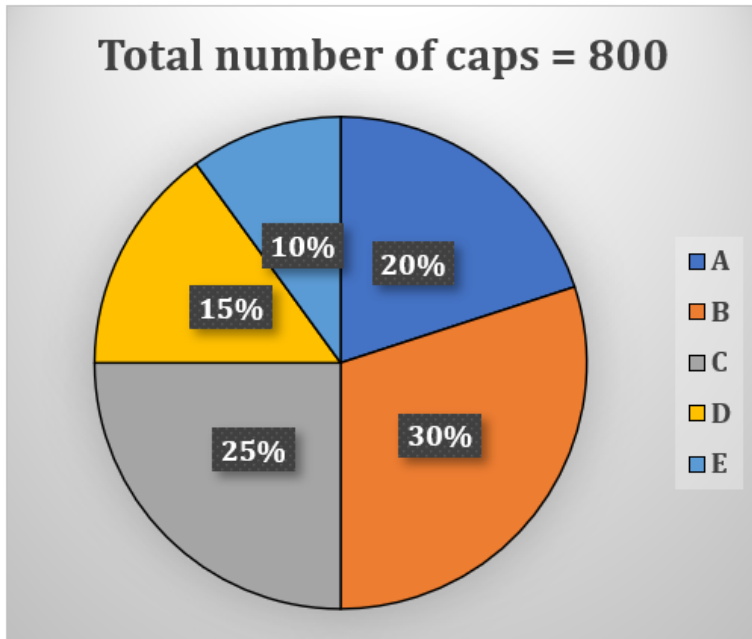
Ans.(c)

The number of students attending online classes from Batch X on Thursday

= $(120 / 100) \times 170 = 204 = 204$

Required difference = 204 - 160 = 44

Directions (75-79): Read the following pie chart carefully and answer the questions given below. The pie chart shows the percentage distribution of total number of caps sold by five different shops.



Q75. Find the ratio of the total number of caps sold by A to E.

- (a) 2:1
- (b) 1:2
- (c) 3:2
- (d) 2:3
- (e) 3:4

Ans.(a)

Required ratio = 20% : 10%
 = 20 : 10
 = 2:1

Q76. The number of caps sold by D is what percentage more or less than the total number of caps sold by A?

- (a) 10%
- (b) 25%
- (c) 30%
- (d) 20%
- (e) 15%

Ans.(b)

Required percentage = $((20 - 15) / 20) \times 100 = 25\%$

Q77. The number of caps sold by C is how many more or less than the number of caps sold by E?

- (a) 90
- (b) 100
- (c) 120
- (d) 50
- (e) 75

Ans.(c)

$$\text{Required difference} = ((25 - 10) / 100) \times 800 = 120$$

Q78. If the price of each cap sold by B is Rs 20 and each cap sold by E is Rs 30, then find the total revenue generated by B and E together to sell all the caps (in Rs).

- (a) 5500
- (b) 3600
- (c) 7200
- (d) 6000
- (e) 5000

Ans.(c)

$$\text{Total number of caps sold by B} = (30/100) \times 800 = 240$$

$$\text{Total number of caps sold by E} = (10/100) \times 800 = 80$$

$$\text{Required answer} = 240 \times 20 + 80 \times 30$$

$$= 4800 + 2400$$

$$= \text{Rs } 7200$$

Q79. If the total number of caps sold by F is 10% more than the average number of caps sold by C and D, then find the number of caps sold by F.

- (a) 176
- (b) 120
- (c) 110
- (d) 140
- (e) 150

Ans.(a)

$$\text{Total number of caps sold by C} = (25/100) \times 800 = 200$$

$$\text{Total number of caps sold by D} = (15/100) \times 800 = 120$$

$$\text{Total number of caps sold by F} = (110/100) \times (200 + 120) \div 2 = 176$$

Directions (80-84): Read the following table carefully and answer the questions given below. The table shows the total number of birds in five different parks.

Parks	Total number of birds
A	400
B	250
C	300
D	550
E	100

Q80. Find the difference between the number of birds in E and that of B.

- (a) 100
- (b) 150
- (c) 140
- (d) 80
- (e) 50

Ans.(b)

Required difference = $250 - 100 = 150$

Q81. Find the ratio of the number of birds in B to that of C.

- (a) 5:6
- (b) 6:5
- (c) 3:4
- (d) 4:5
- (e) 3:2

Ans.(a)

Required ratio = $250 : 300$
= 5:6

Q82. Find the average number of birds in C and E.

- (a) 200
- (b) 150
- (c) 250
- (d) 400
- (e) 80

Ans.(a)

Required average = $(300 + 100) \div 2 = 200$

Q83. The number of birds in E is what percentage of the number of birds in A?

- (a) 10%
- (b) 30%
- (c) 25%
- (d) 15%
- (e) 20%

Ans.(c)

Required percentage = $(100 / 400) \times 100 = 25\%$

Q84. If the number of birds in X is 20% more than that of D, then find the number of birds in X.

- (a) 410
- (b) 580
- (c) 400
- (d) 660
- (e) None of these

Ans.(d)

Required answer = $(120 / 100) \times 550 = 660$

Directions (85-89): Read the following table carefully and answer the questions given below. The number of buses and the ratio of the number of buses to the number of trucks sold by four different companies in a month.

Companies	Buses sold	Buses sold: Trucks sold
P	40	8:5

Q	60	4:7
R	30	3:2
S	20	5:8

Q85. What is the total number of trucks sold by all four companies together?

- (a) 182
- (b) 180
- (c) 184
- (d) 196
- (e) 202

Ans.(a)

Company P

Buses = 40

Ratio = 8 : 5

1 part = $40 \div 8 = 5$

Trucks = $5 \times 5 = 25$

Company Q

Buses = 60

Ratio = 4 : 7

1 part = $60 \div 4 = 15$

Trucks = $15 \times 7 = 105$

Company R

Buses = 30

Ratio = 3 : 2

1 part = $30 \div 3 = 10$

Trucks = $10 \times 2 = 20$

Company S

Buses = 20

Ratio = 5 : 8

1 part = $20 \div 5 = 4$

Trucks = $4 \times 8 = 32$

Companies	Buses sold	Trucks sold
P	40	25
Q	60	105
R	30	20
S	20	32

Required sum = $25 + 105 + 20 + 32 = 182$

Q86. What is the ratio of trucks sold by P to trucks sold by R?

- (a) 5 : 3
- (b) 4 : 5
- (c) 5 : 4
- (d) 5 : 2

(e) 4 : 7

Ans.(c)

Company P

Buses = 40

Ratio = 8 : 5

1 part = $40 \div 8 = 5$

Trucks = $5 \times 5 = 25$

Company Q

Buses = 60

Ratio = 4 : 7

1 part = $60 \div 4 = 15$

Trucks = $15 \times 7 = 105$

Company R

Buses = 30

Ratio = 3 : 2

1 part = $30 \div 3 = 10$

Trucks = $10 \times 2 = 20$

Company S

Buses = 20

Ratio = 5 : 8

1 part = $20 \div 5 = 4$

Trucks = $4 \times 8 = 32$

Companies	Buses sold	Trucks sold
P	40	25
Q	60	105
R	30	20
S	20	32

Required ratio = 25 : 20

= 5 : 4

Q87. The number of trucks sold by Q is what percent more than the number of trucks sold by S (approx.)?

- (a) 200%
- (b) 222%
- (c) 228%
- (d) 250%
- (e) 275%

Ans.(c)

Company P

Buses = 40

Ratio = 8 : 5

1 part = $40 \div 8 = 5$

Trucks = $5 \times 5 = 25$

Company Q

Buses = 60

Ratio = 4 : 7

1 part = $60 \div 4 = 15$

Trucks = $15 \times 7 = 105$

Company R

Buses = 30

Ratio = 3 : 2

1 part = $30 \div 3 = 10$

Trucks = $10 \times 2 = 20$

Company S

Buses = 20

Ratio = 5 : 8

1 part = $20 \div 5 = 4$

Trucks = $4 \times 8 = 32$

Companies	Buses sold	Trucks sold
P	40	25
Q	60	105
R	30	20
S	20	32

Required percentage = $\frac{(105 - 32)}{32} \times 100 = 228.125\% \approx 228\%$

Q88. What is the difference between total vehicles (truck + buses) sold by S and R?

- (a) 9
- (b) 1
- (c) 10
- (d) 5
- (e) 2

Ans.(e)

Company P

Buses = 40

Ratio = 8 : 5

1 part = $40 \div 8 = 5$

Trucks = $5 \times 5 = 25$

Company Q

Buses = 60

Ratio = 4 : 7

1 part = $60 \div 4 = 15$

Trucks = $15 \times 7 = 105$

Company R

Buses = 30

Ratio = 3 : 2

1 part = $30 \div 3 = 10$ Trucks = $10 \times 2 = 20$ **Company S**

Buses = 20

Ratio = 5 : 8

1 part = $20 \div 5 = 4$ Trucks = $4 \times 8 = 32$

Companies	Buses sold	Trucks sold
P	40	25
Q	60	105
R	30	20
S	20	32

Total vehicles sold by S = Buses + Trucks = $20 + 32 = 52$ Total vehicles sold by R = Buses + Trucks = $30 + 20 = 50$ Required difference = $52 - 50 = 2$

Q89. The number of cars sold by P is 45% of the number of buses sold by Q. Find the average number of cars sold by P and the number of trucks sold by P.

(a) 24

(b) 26

(c) 22

(d) 20

(e) 28

Ans.(b)**Company P**

Buses = 40

Ratio = 8 : 5

1 part = $40 \div 8 = 5$ Trucks = $5 \times 5 = 25$ **Company Q**

Buses = 60

Ratio = 4 : 7

1 part = $60 \div 4 = 15$ Trucks = $15 \times 7 = 105$ **Company R**

Buses = 30

Ratio = 3 : 2

1 part = $30 \div 3 = 10$ Trucks = $10 \times 2 = 20$ 

Company S

Buses = 20

Ratio = 5 : 8

1 part = $20 \div 5 = 4$

Trucks = $4 \times 8 = 32$

Companies	Buses sold	Trucks sold
P	40	25
Q	60	105
R	30	20
S	20	32

Number of cars sold by P = $(45/100) \times 60 = 27$

Required average = $(27 + 25) \div 2 = 26$

Directions (90-95): Read the following table carefully and answer the questions given below.

The table shows the difference between male and female employees and the percentage of male employees with respect to total employees in five different companies.

Companies	Difference (Male – Female)	Percentage of Male Employees
A	40	62.5%
B	102	67%
C	96	70%
D	38	60%
E	220	72%

Q90. The number of female employees in Company B is what percentage of male employees in Company C (approx.)?

- (a) 53%
- (b) 59%
- (c) 55%
- (d) 43%
- (e) 67%

Ans.(b)

Company A

Percentage of male employees = 62.5%

Percentage of female employees = 37.5%

Given difference = $62.5 - 37.5 = 25\%$

$25\% = 40$

$100\% = 160$

Total employees = 160

Male employees = $(62.5/100) \times 160 = 100$

Female employees = $160 - 100 = 60$

Company B

Percentage of male employees = 67%

Percentage of female employees = 33%

Given difference = $67 - 33 = 34\%$

$34\% = 102$

$100\% = (102 \times 100) / 34 = 300$

Total employees = 300

Male employees = $(67/100) \times 300 = 201$

Female employees = $300 - 201 = 99$

Company C

Percentage of male employees = 70%

Percentage of female employees = 30%

Given difference = $70 - 30 = 40\%$

$40\% = 96$

$100\% = (96 \times 100) / 40 = 240$

Total employees = 240

Male employees = $(70/100) \times 240 = 168$

Female employees = $240 - 168 = 72$

Company D

Percentage of male employees = 60%

Percentage of female employees = 40%

Given difference = $60 - 40 = 20\%$

$20\% = 38$

$100\% = (38 \times 100) / 20 = 190$

Total employees = 190

Male employees = $(60/100) \times 190 = 114$

Female employees = $190 - 114 = 76$

Company E

Percentage of male employees = 72%

Percentage of female employees = 28%

Given difference = $72 - 28 = 44\%$

$44\% = 220$

$100\% = (220 \times 100) / 44 = 500$

Total employees = 500

Male employees = $(72/100) \times 500 = 360$

Female employees = $500 - 360 = 140$

Companies	Total employees	Male employees	Female employees
A	160	100	60
B	300	201	99
C	240	168	72
D	190	114	76
E	500	360	140

Required percentage = $(99 / 168) \times 100 = 58.9\% \approx 59\%$

Q91. What is the difference between male employees in Company E and Company A?

- (a) 220
- (b) 260
- (c) 190
- (d) 130
- (e) 200

Ans.(b)

Company A

Percentage of male employees = 62.5%

Percentage of female employees = 37.5%

Given difference = $62.5 - 37.5 = 25\%$

$25\% = 40$

$100\% = 160$

Total employees = 160

Male employees = $(62.5/100) \times 160 = 100$

Female employees = $160 - 100 = 60$

Company B

Percentage of male employees = 67%

Percentage of female employees = 33%

Given difference = $67 - 33 = 34\%$

$34\% = 102$

$100\% = (102 \times 100) / 34 = 300$

Total employees = 300

Male employees = $(67/100) \times 300 = 201$

Female employees = $300 - 201 = 99$

Company C

Percentage of male employees = 70%

Percentage of female employees = 30%

Given difference = $70 - 30 = 40\%$

$40\% = 96$

$100\% = (96 \times 100) / 40 = 240$

Total employees = 240

Male employees = $(70/100) \times 240 = 168$

Female employees = $240 - 168 = 72$

Company D

Percentage of male employees = 60%

Percentage of female employees = 40%

Given difference = $60 - 40 = 20\%$

$20\% = 38$

$$100\% = (38 \times 100) / 20 = 190$$

Total employees = 190

$$\text{Male employees} = (60/100) \times 190 = 114$$

$$\text{Female employees} = 190 - 114 = 76$$

Company E

$$\text{Percentage of male employees} = 72\%$$

$$\text{Percentage of female employees} = 28\%$$

$$\text{Given difference} = 72 - 28 = 44\%$$

$$44\% = 220$$

$$100\% = (220 \times 100) / 44 = 500$$

Total employees = 500

$$\text{Male employees} = (72/100) \times 500 = 360$$

$$\text{Female employees} = 500 - 360 = 140$$

Companies	Total employees	Male employees	Female employees
A	160	100	60
B	300	201	99
C	240	168	72
D	190	114	76
E	500	360	140

$$\text{Required difference} = 360 - 100 = 260$$

Q92. Find the average number of female employees in Companies A, C, and B.

- (a) 77
- (b) 74
- (c) 79
- (d) 76
- (e) 70

Ans.(a)

Company A

$$\text{Percentage of male employees} = 62.5\%$$

$$\text{Percentage of female employees} = 37.5\%$$

$$\text{Given difference} = 62.5 - 37.5 = 25\%$$

$$25\% = 40$$

$$100\% = 160$$

Total employees = 160

$$\text{Male employees} = (62.5/100) \times 160 = 100$$

$$\text{Female employees} = 160 - 100 = 60$$

Company B

$$\text{Percentage of male employees} = 67\%$$

$$\text{Percentage of female employees} = 33\%$$

Given difference = $67 - 33 = 34\%$

$34\% = 102$

$100\% = (102 \times 100) / 34 = 300$

Total employees = 300

Male employees = $(67/100) \times 300 = 201$

Female employees = $300 - 201 = 99$

Company C

Percentage of male employees = 70%

Percentage of female employees = 30%

Given difference = $70 - 30 = 40\%$

$40\% = 96$

$100\% = (96 \times 100) / 40 = 240$

Total employees = 240

Male employees = $(70/100) \times 240 = 168$

Female employees = $240 - 168 = 72$

Company D

Percentage of male employees = 60%

Percentage of female employees = 40%

Given difference = $60 - 40 = 20\%$

$20\% = 38$

$100\% = (38 \times 100) / 20 = 190$

Total employees = 190

Male employees = $(60/100) \times 190 = 114$

Female employees = $190 - 114 = 76$

Company E

Percentage of male employees = 72%

Percentage of female employees = 28%

Given difference = $72 - 28 = 44\%$

$44\% = 220$

$100\% = (220 \times 100) / 44 = 500$

Total employees = 500

Male employees = $(72/100) \times 500 = 360$

Female employees = $500 - 360 = 140$

Companies	Total employees	Male employees	Female employees
A	160	100	60
B	300	201	99
C	240	168	72
D	190	114	76
E	500	360	140

Required average = $(60 + 99 + 72) \div 3 = 77$

Q93. If 20% of male employees in Company E resign, what will be the new difference between male and female employees in Company E?

- (a) 120
- (b) 150
- (c) 148
- (d) 142
- (e) 168

Ans.(c)

Company A

Percentage of male employees = 62.5%

Percentage of female employees = 37.5%

Given difference = $62.5 - 37.5 = 25\%$

$25\% = 40$

$100\% = 160$

Total employees = 160

Male employees = $(62.5/100) \times 160 = 100$

Female employees = $160 - 100 = 60$

Company B

Percentage of male employees = 67%

Percentage of female employees = 33%

Given difference = $67 - 33 = 34\%$

$34\% = 102$

$100\% = (102 \times 100) / 34 = 300$

Total employees = 300

Male employees = $(67/100) \times 300 = 201$

Female employees = $300 - 201 = 99$

Company C

Percentage of male employees = 70%

Percentage of female employees = 30%

Given difference = $70 - 30 = 40\%$

$40\% = 96$

$100\% = (96 \times 100) / 40 = 240$

Total employees = 240

Male employees = $(70/100) \times 240 = 168$

Female employees = $240 - 168 = 72$

Company D

Percentage of male employees = 60%

Percentage of female employees = 40%

Given difference = $60 - 40 = 20\%$

$20\% = 38$

$$100\% = (38 \times 100) / 20 = 190$$

Total employees = 190

$$\text{Male employees} = (60/100) \times 190 = 114$$

$$\text{Female employees} = 190 - 114 = 76$$

Company E

$$\text{Percentage of male employees} = 72\%$$

$$\text{Percentage of female employees} = 28\%$$

$$\text{Given difference} = 72 - 28 = 44\%$$

$$44\% = 220$$

$$100\% = (220 \times 100) / 44 = 500$$

Total employees = 500

$$\text{Male employees} = (72/100) \times 500 = 360$$

$$\text{Female employees} = 500 - 360 = 140$$

Companies	Total employees	Male employees	Female employees
A	160	100	60
B	300	201	99
C	240	168	72
D	190	114	76
E	500	360	140

$$\text{Male employees in E} = 360$$

$$20\% \text{ resign} \Rightarrow 0.2 \times 360 = 72$$

$$\text{New male} = 360 - 72 = 288$$

$$\text{Female remains} = 140$$

$$\text{New difference} = 288 - 140 = 148$$

Q94. The total number of employees in F is 25% more than that of B, and the ratio of male employees in F to that of C is 7:4, respectively. Find the sum of the female employees in F and D.

(a) 193

(b) 189

(c) 157

(d) 153

(e) 167

Ans.(c)

Company A

$$\text{Percentage of male employees} = 62.5\%$$

$$\text{Percentage of female employees} = 37.5\%$$

$$\text{Given difference} = 62.5 - 37.5 = 25\%$$

$$25\% = 40$$

$$100\% = 160$$

Total employees = 160

$$\text{Male employees} = (62.5/100) \times 160 = 100$$

$$\text{Female employees} = 160 - 100 = 60$$

Company B

Percentage of male employees = 67%
 Percentage of female employees = 33%
 Given difference = $67 - 33 = 34\%$
 $34\% = 102$
 $100\% = (102 \times 100) / 34 = 300$

Total employees = 300
 Male employees = $(67/100) \times 300 = 201$
 Female employees = $300 - 201 = 99$

Company C

Percentage of male employees = 70%
 Percentage of female employees = 30%
 Given difference = $70 - 30 = 40\%$
 $40\% = 96$
 $100\% = (96 \times 100) / 40 = 240$

Total employees = 240
 Male employees = $(70/100) \times 240 = 168$
 Female employees = $240 - 168 = 72$

Company D

Percentage of male employees = 60%
 Percentage of female employees = 40%
 Given difference = $60 - 40 = 20\%$
 $20\% = 38$
 $100\% = (38 \times 100) / 20 = 190$

Total employees = 190
 Male employees = $(60/100) \times 190 = 114$
 Female employees = $190 - 114 = 76$

Company E

Percentage of male employees = 72%
 Percentage of female employees = 28%
 Given difference = $72 - 28 = 44\%$
 $44\% = 220$
 $100\% = (220 \times 100) / 44 = 500$

Total employees = 500
 Male employees = $(72/100) \times 500 = 360$
 Female employees = $500 - 360 = 140$

Companies	Total employees	Male employees	Female employees
A	160	100	60
B	300	201	99
C	240	168	72
D	190	114	76
E	500	360	140

Total number of employees in F = $(125/100) \times 300 = 375$
 Male employees in F = $(7/4) \times 168 = 294$
 Female employees in F = $375 - 294 = 81$
 Required sum = $81 + 76 = 157$

Q95. What is the ratio of total employees in Companies B and A together to the female employees in Companies A and E together?

- (a) 19:21
- (b) 15:19
- (c) 11:15
- (d) 10:23
- (e) 23:10

Ans.(e)

Company A

Percentage of male employees = 62.5%

Percentage of female employees = 37.5%

Given difference = $62.5 - 37.5 = 25\%$

$25\% = 40$

$100\% = 160$

Total employees = 160

Male employees = $(62.5/100) \times 160 = 100$

Female employees = $160 - 100 = 60$

Company B

Percentage of male employees = 67%

Percentage of female employees = 33%

Given difference = $67 - 33 = 34\%$

$34\% = 102$

$100\% = (102 \times 100) / 34 = 300$

Total employees = 300

Male employees = $(67/100) \times 300 = 201$

Female employees = $300 - 201 = 99$

Company C

Percentage of male employees = 70%

Percentage of female employees = 30%

Given difference = $70 - 30 = 40\%$

$40\% = 96$

$100\% = (96 \times 100) / 40 = 240$

Total employees = 240

Male employees = $(70/100) \times 240 = 168$

Female employees = $240 - 168 = 72$

Company D

Percentage of male employees = 60%

Percentage of female employees = 40%

Given difference = $60 - 40 = 20\%$

$20\% = 38$

$100\% = (38 \times 100) / 20 = 190$

Total employees = 190

Male employees = $(60/100) \times 190 = 114$

Female employees = $190 - 114 = 76$

Company E

Percentage of male employees = 72%

Percentage of female employees = 28%

Given difference = $72 - 28 = 44\%$

$44\% = 220$

$100\% = (220 \times 100) / 44 = 500$

Total employees = 500

Male employees = $(72/100) \times 500 = 360$

Female employees = $500 - 360 = 140$

Companies	Total employees	Male employees	Female employees
A	160	100	60
B	300	201	99
C	240	168	72
D	190	114	76
E	500	360	140

Required ratio = $(300 + 160) : (60 + 140)$

= $460 : 200$

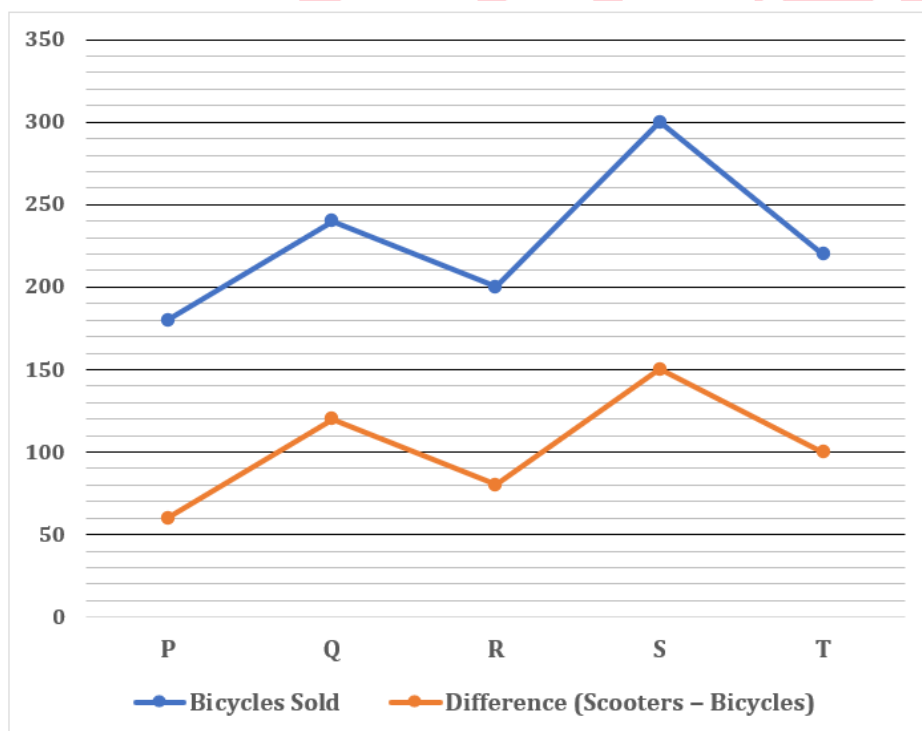
= $23 : 10$

Directions (96-101): Read the following line graph carefully and answer the questions given below.

The line graph given below shows the total number of bicycles sold and the difference between scooters and bicycles sold by five different showrooms (P, Q, R, S, and T) in a particular month. **Note:**

I: Total vehicles sold = Scooters + Bicycles

II: Total scooters sold by all showrooms are more than total bicycles sold.



Q96. What is the ratio of bicycles sold by Showroom P to scooters sold by Showroom S?

- (a) 7:2
- (b) 4:7
- (c) 5:4
- (d) 3:5
- (e) 2:5

Ans.(e)

Showroom P

Bicycles sold = 180

Difference = 60

Scooters sold = $180 + 60 = 240$

Total vehicles sold = $180 + 240 = 420$

Showroom Q

Bicycles sold = 240

Difference = 120

Scooters sold = $240 + 120 = 360$

Total vehicles sold = $240 + 360 = 600$

Showroom R

Bicycles sold = 200

Difference = 80

Scooters sold = $200 + 80 = 280$

Total vehicles sold = $200 + 280 = 480$

Showroom S

Bicycles sold = 300

Difference = 150

Scooters sold = $300 + 150 = 450$

Total vehicles sold = $300 + 450 = 750$

Showroom T

Bicycles sold = 220

Difference = 100

Scooters sold = $220 + 100 = 320$

Total vehicles sold = $220 + 320 = 540$

Showrooms	Bicycles Sold	Scooters Sold	Total Vehicles
P	180	240	420
Q	240	360	600
R	200	280	480
S	300	450	750
T	220	320	540
Total	1140	1650	2790

Required ratio = 180 : 450

= 2 : 5

Q97. What is the difference between total scooters sold and total bicycles sold across all showrooms?

- (a) 530
- (b) 550
- (c) 510
- (d) 590
- (e) 505

Ans.(c)

Showroom P

Bicycles sold = 180

Difference = 60

Scooters sold = 180 + 60 = **240**

Total vehicles sold = 180 + 240 = **420**

Showroom Q

Bicycles sold = 240

Difference = 120

Scooters sold = 240 + 120 = **360**

Total vehicles sold = 240 + 360 = **600**

Showroom R

Bicycles sold = 200

Difference = 80

Scooters sold = 200 + 80 = **280**

Total vehicles sold = 200 + 280 = **480**

Showroom S

Bicycles sold = 300

Difference = 150

Scooters sold = 300 + 150 = **450**

Total vehicles sold = 300 + 450 = **750**

Showroom T

Bicycles sold = 220

Difference = 100

Scooters sold = 220 + 100 = **320**

Total vehicles sold = 220 + 320 = **540**

Showrooms	Bicycles Sold	Scooters Sold	Total Vehicles
P	180	240	420
Q	240	360	600
R	200	280	480
S	300	450	750
T	220	320	540
Total	1140	1650	2790

Required difference = 1650 - 1140 = 510

Q98. The total vehicles sold by Showroom T is what percentage more than the total vehicles sold by Showroom P (approx.)?

- (a) 23%
- (b) 34%
- (c) 29%
- (d) 18%
- (e) 11%

Ans.(c)

Showroom P

Bicycles sold = 180

Difference = 60

Scooters sold = 180 + 60 = **240**

Total vehicles sold = 180 + 240 = **420**

Showroom Q

Bicycles sold = 240

Difference = 120

Scooters sold = 240 + 120 = **360**

Total vehicles sold = 240 + 360 = **600**

Showroom R

Bicycles sold = 200

Difference = 80

Scooters sold = 200 + 80 = **280**

Total vehicles sold = 200 + 280 = **480**

Showroom S

Bicycles sold = 300

Difference = 150

Scooters sold = 300 + 150 = **450**

Total vehicles sold = 300 + 450 = **750**

Showroom T

Bicycles sold = 220

Difference = 100

Scooters sold = 220 + 100 = **320**

Total vehicles sold = 220 + 320 = **540**

Showrooms	Bicycles Sold	Scooters Sold	Total Vehicles
P	180	240	420
Q	240	360	600
R	200	280	480
S	300	450	750
T	220	320	540
Total	1140	1650	2790

Required percentage = $((540 - 420) / 420) \times 100 = 28.57\% \approx 29\%$

Q99. If the total vehicles sold by X is 5/8th that of R and the average number of scooters sold by P and X is 130, then find the number of bicycles sold by X.

- (a) 180
- (b) 140
- (c) 190
- (d) 220
- (e) 280

Ans.(e)

Showroom P

Bicycles sold = 180

Difference = 60

Scooters sold = 180 + 60 = **240**

Total vehicles sold = 180 + 240 = **420**

Showroom Q

Bicycles sold = 240

Difference = 120

Scooters sold = 240 + 120 = **360**

Total vehicles sold = 240 + 360 = **600**

Showroom R

Bicycles sold = 200

Difference = 80

Scooters sold = 200 + 80 = **280**

Total vehicles sold = 200 + 280 = **480**

Showroom S

Bicycles sold = 300

Difference = 150

Scooters sold = 300 + 150 = **450**

Total vehicles sold = 300 + 450 = **750**

Showroom T

Bicycles sold = 220

Difference = 100

Scooters sold = 220 + 100 = **320**

Total vehicles sold = 220 + 320 = **540**

Showrooms	Bicycles Sold	Scooters Sold	Total Vehicles
P	180	240	420
Q	240	360	600
R	200	280	480
S	300	450	750
T	220	320	540
Total	1140	1650	2790

Total vehicles sold by X = $(5/8) \times 480 = 300$

Total scooters sold by X = $130 \times 2 - 240 = 20$

Required answer = $300 - 20 = 280$

Q100. 20% of the bicycles sold by S are defective, and 80% of the scooters sold by S are non-defective. Find the difference between the total defective and total non-defective vehicles sold by S.

- (a) 350
- (b) 300
- (c) 450
- (d) 200
- (e) 250

Ans.(c)

Showroom P

Bicycles sold = 180

Difference = 60

Scooters sold = 180 + 60 = **240**

Total vehicles sold = 180 + 240 = **420**

Showroom Q

Bicycles sold = 240

Difference = 120

Scooters sold = 240 + 120 = **360**

Total vehicles sold = 240 + 360 = **600**

Showroom R

Bicycles sold = 200

Difference = 80

Scooters sold = 200 + 80 = **280**

Total vehicles sold = 200 + 280 = **480**

Showroom S

Bicycles sold = 300

Difference = 150

Scooters sold = 300 + 150 = **450**

Total vehicles sold = 300 + 450 = **750**

Showroom T

Bicycles sold = 220

Difference = 100

Scooters sold = 220 + 100 = **320**

Total vehicles sold = 220 + 320 = **540**

Showrooms	Bicycles Sold	Scooters Sold	Total Vehicles
P	180	240	420
Q	240	360	600
R	200	280	480
S	300	450	750
T	220	320	540
Total	1140	1650	2790

Defective bicycles = $(20/100) \times 300 = 60$

Non-defective bicycles = $300 - 60 = 240$

Non-defective scooters = $(80/100) \times 450 = 360$

Defective scooters = $450 - 360 = 90$

Required difference = $(240 + 360) - (60 + 90)$

= $600 - 150 = 450$

Q101. The ratio of total cars sold to the total scooters sold by Q is 5:8 respectively. If the total buses sold by Q is 20% more than that of total cars sold, then find the total buses and bicycles together sold by Q.

- (a) 490
- (b) 500
- (c) 510
- (d) 540
- (e) 530

Ans.(c)

Showroom P

Bicycles sold = 180

Difference = 60

Scooters sold = 180 + 60 = **240**

Total vehicles sold = 180 + 240 = **420**

Showroom Q

Bicycles sold = 240

Difference = 120

Scooters sold = 240 + 120 = **360**

Total vehicles sold = 240 + 360 = **600**

Showroom R

Bicycles sold = 200

Difference = 80

Scooters sold = 200 + 80 = **280**

Total vehicles sold = 200 + 280 = **480**

Showroom S

Bicycles sold = 300

Difference = 150

Scooters sold = 300 + 150 = **450**

Total vehicles sold = 300 + 450 = **750**

Showroom T

Bicycles sold = 220

Difference = 100

Scooters sold = 220 + 100 = **320**

Total vehicles sold = 220 + 320 = **540**

Showrooms	Bicycles Sold	Scooters Sold	Total Vehicles
P	180	240	420
Q	240	360	600
R	200	280	480
S	300	450	750
T	220	320	540
Total	1140	1650	2790

Total cars sold by Q = $(5/8) \times 360 = 225$

Total buses sold by Q = $(120/100) \times 225 = 270$

Required sum = 270 + 240 = 510

