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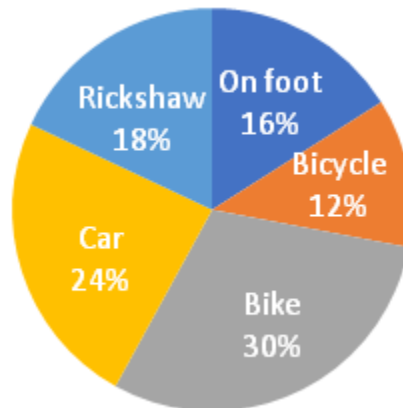
Date Interpretation Mixed Chart Questions Quiz for IBPS PO Mains, SBI PO Mains and RBI Grade B Exams.

Data Interpretation Mixed Chart Quiz 31

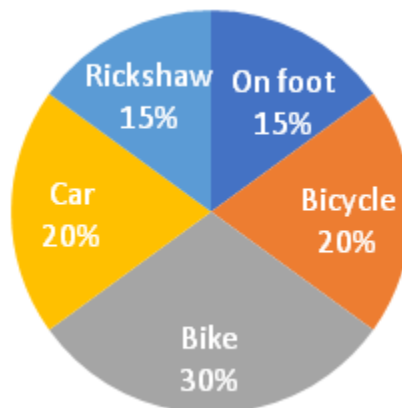
Direction: Study the following pie chart and table chart carefully and answer the questions based on it.

Four friends, Priyanka, Pinki, Rinki, and Munni start travelling towards a certain distance from the same point and at the same time. The following four pie charts give the information about the percentage of the total distance travelled by them in five different modes of travelling i.e. on foot, bicycle, Bike, Car and Rickshaw. Each one travels a different distance in the same time.

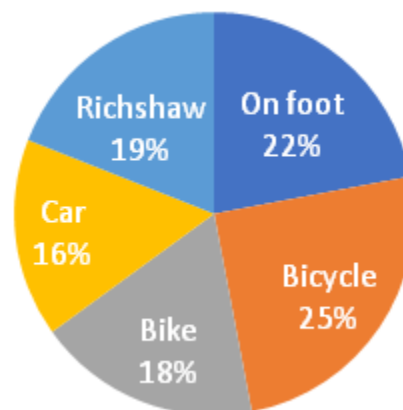
Priyanka

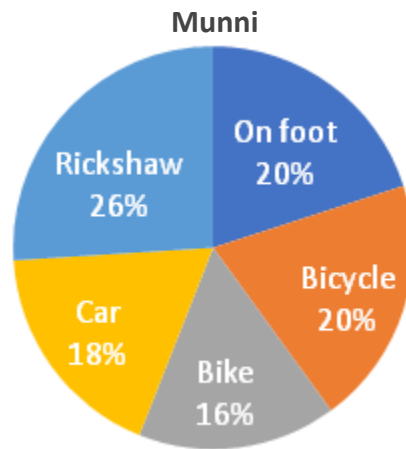


Pinki



Rinki





The following table provides information about the distance (in km) travelled by each of them on foot as a percentage of the sum of the total distance travelled by them on foot.

Priyanka	Pinki	Rinki	Munni
20%	30%	25%	25%

1. For who among the following, the distance travelled by her was the least?

- A. Priyanka B. Pinki C. Rinki D. Munni E. Can't be determined

2. If the average speed of Priyanka is 45 km/hr and the distance travelled by her on foot is 36 km. Find the difference between the average speed of Priyanka and the average speed of Munni?

- A. 90 km/hr B. 35 km/hr C. 45 km/hr D. 54 km/hr E. None of these

3. Suppose Pinki starts 1 hour later than all other three start their journey but Priyanka and Pinki complete their respective distance at the same time. The total distance travelled by all of them on foot is 250 km. Find the respective ratio of the average speed of Priyanka and Pinki in this case?

- A. 5 : 8 B. 5 : 6 C. 6 : 7 D. 6 : 5 E. Can't be determined

4. If the total distance travelled by all of them on foot is 300 km. Find the sum of the total distance travelled by all of them by car and by rickshaw? (approximately)

- A. 651.82 km B. 541.32 km C. 648.42 km D. 698.45 km E. Can't be determined

5. Each of the two girls Rinki and Munni starts their journey at 10: 30 AM but Munni take 1-hour rest in the middle of the journey but each of them reaches their respective distance at 00:30 AM on the next day. Find the ratio of the respective average speed of Rinki and Munni? (It is given that the average of the total distance travelled by Priyanka and Pinki together on foot is 125 km)

- A. 10 : 11 B. 143 : 140 C. 13 : 14 D. 14 : 13 E. 1 : 2

Correct Answers:

1	2	3	4	5
C	E	E	A	A

Explanations:

1. The total distance travelled by them on foot = x km
The total distance travelled by Priyanka on foot = 20% of x
 $= \frac{x}{5}$ km = 16% of the total distance travelled by her

$$\frac{x}{5} = 16\% \text{ of the total distance travelled by Priyanka}$$

By, solving

$$\text{The total distance travelled by Priyanka} = \frac{5x}{4} = 1.25x \text{ km}$$

Similarly, the total distance travelled by Pinki = 2x km

$$\text{The total distance travelled by Rinki} = 25 \times \frac{x}{22} = 1.14x \text{ km}$$

$$\text{The total distance travelled by Munni} = \frac{5x}{4} = 1.25x \text{ km}$$

Required answer = Rinki

Hence, option C is correct.

2. The distance travelled by Priyanka on foot = 16% of the total distance = 36 km

The total distance travelled by Priyanka = 225 km

Average speed = 45 km/hr,

$$\text{Total time} = \frac{225}{45} = 5 \text{ hours.....(i)}$$

From the table, 36 km = 20% of the total distance travelled by all of them on foot

The total distance travelled by Munni on foot = 25% of the total distance travelled by all of them on foot

Since, 20% = 36 therefore,

$$25\% = 36 \times \frac{25}{20} = 45 \text{ km}$$

From the pie chart, 45 km = 20% of the total distance travelled by Munni

$$\text{The total distance travelled by Munni} = 45 \times \frac{100}{20} = 225 \text{ km}$$

In the question, it is given that each of them takes equal time, so from the equation (i) even Munni will take 5 hours

$$\text{Average speed of Munni} = \frac{225}{5} = 45 \text{ km/hr}$$

Required difference = 45 – 45 = 0 km/hr

Hence, option E is correct.

3. Let the time taken by Pinki = x hours
 Then according to the question, the time taken by Priyanka = x + 1 hours
 Now, For Priyanka
 20% of the total distance travelled by all of them on foot = 16% of the total distance travelled by Priyanka
 20% of 250 = 16% of the total distance travelled by Priyanka
 By solving, the total distance travelled by Priyanka = 312.5 km

$$\text{Average speed} = \frac{312.5}{(x + 1)} \text{ km/hr}$$

Similarly for Pinki,

- 30% of the total distance travelled by all of them on foot = 15% of the total distance travelled by Pinki
 30% of 250 = 15% of the total distance travelled by Pinki
 By solving, the total distance travelled by Pinki = 500 km

$$\text{Average speed} = \frac{500}{x} \text{ km/hr}$$

$$\text{Required Ratio} = \frac{312.5}{(x + 1)} \text{ km/hr} : \frac{500}{x} \text{ km/hr}$$

Since it is not possible to determine the value of x so ratio can't be determined
 Hence, option E is correct.

4. The total distance travelled by all of them on foot is 300 km
 For Priyanka,
 The total distance travelled by Priyanka on foot = 20% of the total distance travelled by all of them on foot = 20% of 300 = 60 km
 16% of the total distance travelled by Priyanka = 60 km
 The total distance travelled by Priyanka by car and by rickshaw = (18 + 24) % of the total distance 16% = 60 so the value of 42%

$$= 60 \times \frac{42}{16} = 157.5 \text{ km}$$

Similarly, For Pinki,

- 30% of 300 = 15% of the total distance travelled by her
 15% = 90 So, (20 + 15)% = 35%

$$= 90 \times \frac{35}{15} = 210 \text{ km}$$

- For Rinki, 25% of 300 = 22% of the total distance travelled by her 22% = 75 km
 So, (19 + 16)% = 35%

$$= 75 \times \frac{35}{22} = 119.32 \text{ km}$$

- For Munki, 25% of 300 = 20% of the total distance travelled by her 20% = 75 km
 So, (26 + 18)% = 44%

$$= 75 \times \frac{44}{20} = 165 \text{ km}$$

The required sum = 157.5 + 210 + 119.32 + 165 = 651.82 km
 Hence, option A is correct.

5. The sum of the total distance travelled by Priyanka and Pinki together on foot is $125 \times 2 = 250$ km
From the data table, the sum of the total distance travelled by Priyanka and Pinki together on foot = $(20 + 30)$ % of the total distance travelled by all of them on foot
50% of the total distance travelled by all of them on foot = 250 km

$$\text{The total distance travelled by all of them on foot} = 250 \times \frac{100}{50} = 500 \text{ km}$$

The total distance travelled by Rinki on foot = 25% of 500 = 125 km = 22% of the total distance travelled by her
22% of the total distance = 125

$$\text{Total distance} = 125 \times \frac{100}{22}$$

Total time taken by her = 14 hrs

$$\text{Speed} = \frac{(125 \times 100)}{(14 \times 22)} \text{ km/hr}$$

The total distance travelled by Munni on foot = 25% of 500 = 125 km = 20% of the total distance travelled by her
20% of the total distance = 125

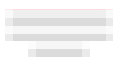
$$\text{Total distance} = 125 \times \frac{100}{20}$$

Total time taken by her = 14 hrs

$$\text{Speed} = \frac{(125 \times 100)}{(20 \times 14)}$$

$$\text{The required Ratio} = \frac{(125 \times 100)}{(14 \times 22)} : \frac{(125 \times 100)}{(14 \times 20)} = 10 : 11$$

Hence, option A is correct.





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