

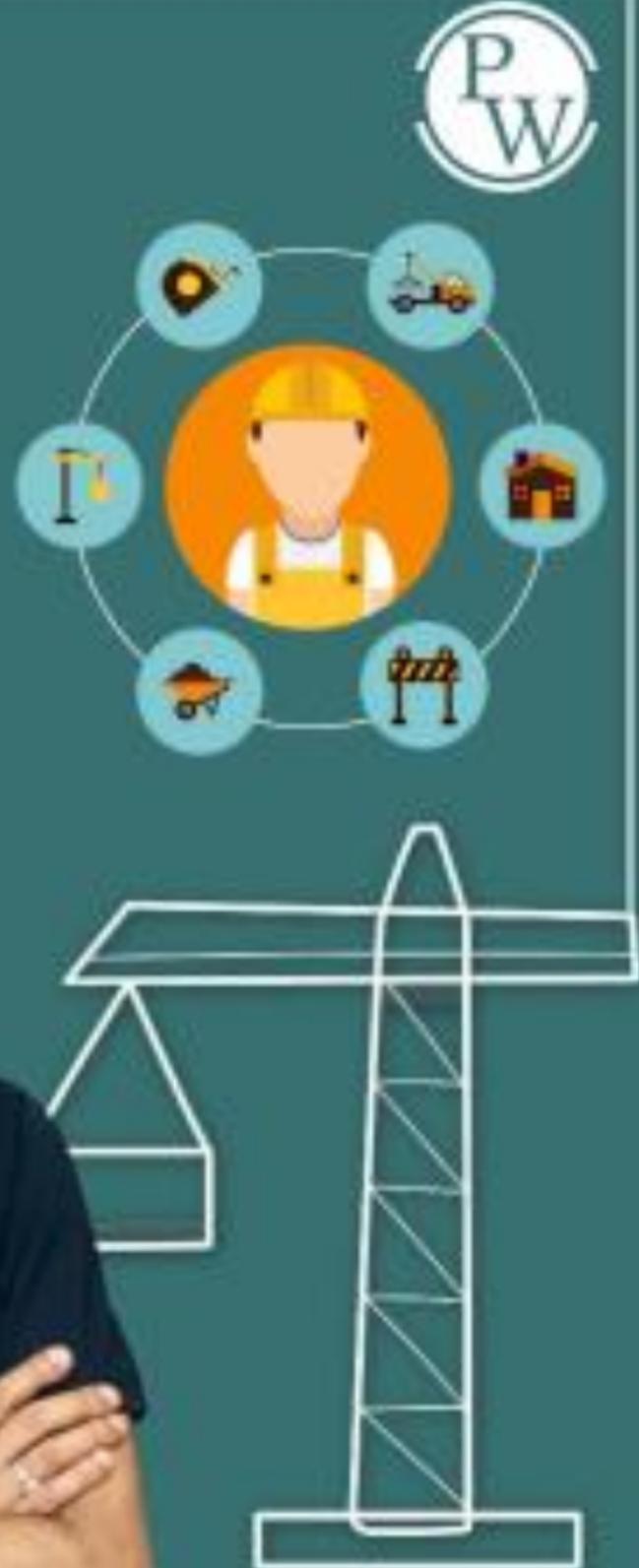
GATE-2023 CRASH COURSE

GENERAL APTITUDE

DATA INTERPRETATION

Lecture No.17

AMULYA RATAN SIR





- 01** Meaning of Interpretation
- 02** Types of Data Provided
- 03** Best way to approach
- 04** Questionnaire

DATA INTERPRETATION



DATA INTERPRETATION

Types of Data Interpretation: The numerical data pertaining to any event can be presented by any one or more of the following methods.

- 1) Tables
- 2) Line Graphs
- 3) Bar Graphs or Bar Charts
- 4) Pie Charts or Circle Graphs



TABULATION

Study the following table carefully and answer the questions:

Year	Heavy	Light Commercial Vehicles	Cars	Jeeps	Two-Wheelers
1990	26	64	232	153	340
1991	45	60	242	172	336
1992	72	79	248	210	404
1993	81	93	280	241	411
1994	107	112	266	235	442
Total	331	408	1268	1011	1933



Q.1

The percentage increase in the sales in 1993 over the previous year was maximum for which of the following categories of vehicles?

A Cars

$$\frac{81}{72} = 1.125$$

B Heavy Vehicles

Year	Heavy Vehicles	Light Commercial Vehicles	Cars	Jeeps	Two-Wheelers
1990	26	64	232	153	340
1991	45	60	242	172	336
1992	72	79	248	210	404
1993	81	93	280	241	411
1994	107	112	266	235	442
Total	331	408	1268	1011	1933

C Jeeps

$$\frac{411}{404} = 1.017$$

D Light Commercial Vehicles

$$\frac{280}{248} = 1.129$$

$$= 1.177$$



Q.1

The percentage increase in the sales in 1993 over the previous year was maximum for which of the following categories of vehicles?

A Cars

B Heavy Vehicles

C Jeeps

D Light Commercial Vehicles

Year	Heavy	Light Commercial Vehicles	Cars	Jeeps	Two-Wheelers
1990	26	64	232	153	340
1991	45	60	242	172	336
1992	72	79	248	210	404
1993	81	93	280	241	411
1994	107	112	266	235	442
Total	331	408	1268	1011	1933

$$\frac{81}{72} = 1.125$$

$$\frac{93}{79} = 1.177$$

$$\frac{280}{248} = 1.129$$

$$\frac{241}{210} = 1.147$$

$$\frac{411}{404} = 1.017$$



Q.2

In which year was the number of 2-wheeler sold as a percentage of the total number of vehicles sold during that year, the highest?

- A 1994
- B 1991
- C 1990
- D 1992

Year	Heavy	Light Commercial Vehicles	Cars	Jeeps	Two-Wheelers
1990	26	64	232	153	340
1991	45	60	242	172	336
1992	72	79	248	210	404
1993	81	93	280	241	411
1994	107	112	266	235	442
Total	331	408	1268	1011	1933



Q.2

~~40480~~
~~1013~~ In which year was the number of 2-wheeler sold as a percentage of the total number of vehicles sold during that year, the highest?

$$\frac{33600}{855}$$

$$\frac{34050}{815} = 41.7\%$$

- A 1994
- B 1991
- C 1990
- D 1992

Year	Heavy	Light Commercial Vehicles	Cars	Jeeps	Two-Wheelers	Total
1990	26	64	232	153	340	815
1991	45	60	242	172	336	855
1992	72	79	248	210	404	1013
1993	81	93	280	241	411	1106
1994	107	112	266	235	442	1162
Total	331	408	1268	1011	1933	

$$\frac{44205}{1162} = 38.03$$



Q.3

The number of Heavy Vehicles sold in 1993 was approximately what percent of the total number of vehicles sold in 1992?

A 8 $\frac{81}{1013}$

B 10 $\frac{81}{1013}$

C 7

D 9

Year	Heavy	Light Commercial Vehicles	Cars	Jeeps	Two-Wheelers	Total
1990	26	64	232	153	340	815
1991	45	60	242	172	336	855
1992	72	79	248	210	404	1013
1993	81	93	280	241	411	1106
1994	107	112	266	235	442	1162
Total	331	408	1268	1011	1933	



Q.4

If the same percentage increase in the number of Heavy Vehicle as in 1994 over 1993 is expected in 1995, approximately how many heavy vehicles will be sold in 1995?

A 139

B 141

C 144

D 133

$$\frac{107}{81} \times 107$$

Year	Heavy	Light Commercial Vehicles	Cars	Jeeps	Two-Wheelers
1990	26	64	232	153	340
1991	45	60	242	172	336
1992	72	79	248	210	404
1993	81	93	280	241	411
1994	107	112	266	235	442
Total	331	408	1268	1011	1933



Q.5

In which of the following years was the number of light commercial vehicles sold approximately 25% of the number of 2-wheeler sold?

- A 1993
- B 1991
- C 1990
- D 1994

112
~~112~~
~~112~~
~~112~~
112

Year	Heavy	Light Commercial Vehicles	Cars	Jeeps	Two-Wheelers
1990	26	64 xy	232	153	<u>340</u>
1991	45	60 xy	242	172	<u>336</u>
1992	72	79 xy	248	210	<u>404</u>
1993	81	93 xy	280	241	<u>411</u>
1994	107	112 xy	266	235	<u>442</u>
Total	331	<u>408</u>	1268	1011	1933

256
?40
316
372



Study the following table and answer the questions:

<u>Source of Income</u>	<u>Employees</u>				
	A	B	C	D	E
Salary	400	200	700	300	400
Bonus	80	40	150	80	100
Overtime	180	70	200	170	200
Arrears	200	180	400	140	250
Misc	40	10	50	10	50
TOTAL	900	500	1500	700	1000



Q.1

Who among the following employees earns maximum bonus in comparison to his total income?

A A

B B

C C

D D

Source of Income	A	B	C	D	E
	8.8%	8%	10%	11.4%	10%
Salary	400	200	700	300	400
Bonus	80	40	150	80	100
Overtime	180	70	200	170	200
Arrears	200	180	400	140	250
Misc	40	10	50	10	50
TOTAL	900	500	1500	700	1000



Q.1

Who among the following employees earns maximum bonus in comparison to his total income?

A A

B B

C C

D D

(8)
40
80
1

Source of Income	A	B	C	D	E
Salary	400	200	700	300	400
Bonus	80	40	150	80	100
Overtime	180	70	200	170	200
Arrears	200	180	400	140	250
Misc	40	10	50	10	50
TOTAL	900	500	1500	700	1000

$$\frac{8000}{900} = 8.88\%$$

$$\frac{4000}{500} = 8\%$$

$$= 10\%$$

$$\frac{8000}{700} = 11.42\%$$



Q.2

The income from overtime is what percent of income from arrears in the case of employee A?

A 90

B 80

C 75

D 40

Source of Income	Employees				
	A	B	C	D	E
Salary	400	200	700	300	400
Bonus	80	40	150	80	100
Overtime	180	70	200	170	200
Arrears	200	180	400	140	250
Misc	40	10	50	10	50
TOTAL	900	500	1500	700	1000



Q.3

How many employee have their salary less than 3 times the income from bonus?

A 1

B 2

C 3

D None

Source of Income	Employees				
	A	B	C	D	E
Salary	400	200	700	300	400
Bonus	80 $\times 3$	40 $\times 3$	150 $\times 3$	80 $\times 3$	100 $\times 3$
Overtime	180	70	200	170	200
Arrears	200	180	400	140	250
Misc	40	10	50	10	50
TOTAL	900	500	1500	700	1000



Q.4

Who among the following employees has maximum percentage of his salary out of the total income?

A E

B A

C D

D C

Source of Income	A	B	C	D	E
Salary	400	200	700	300	400
Bonus	80	40	150	80	100
Overtime	180	70	200	170	200
Arrears	200	180	400	140	250
Misc	40	10	50	10	50
TOTAL	900	500	1500	700	1000



Q.4

Who among the following employees has maximum percentage of his salary out of the total income?

A E

B A

C D

D C

Source of Income	Employees				
	A	B	C	D	E
Salary	400	200	700	300	400
Bonus	80	40	150	80	100
Overtime	180	70	200	170	200
Arrears	200	180	400	140	250
Misc	40	10	50	10	50
TOTAL	900	500	1500	700	1000

$$400/9 = 44.44\%$$

$$200/5 = 40\%$$

$$700/15 = 46.66\%$$

$$300/7 = 42.85\%$$

$$400/10 = 40\%$$



Q.5

Who among the following employees has minimum ratio of income from arrears to the income from salary?

$A : S$

A A

B B

C E

D D

$$\frac{2}{4} = 0.5$$

Source of Income	Employees	0.5	0.9	0.57	0.46	0.625
	A	B	C	D	E	
Salary	400	200	700	300	400	
Bonus	80	40	150	80	100	
Overtime	180	70	200	170	200	
Arrears	200	180	400	140	250	
Misc	40	10	50	10	50	
TOTAL	900	500	1500	700	1000	



Q.5

Who among the following employees has minimum ratio of income from arrears to the income from salary?

- A A
- B B
- C E
- D D

Source of Income	Employees				
	A	B	C	D	E
Salary	400	200	700	300	400
Bonus	80	40	150	80	100
Overtime	180	70	200	170	200
Arrears	200	180	400	140	250
Misc	40	10	50	10	50
TOTAL	900	500	1500	700	1000

$$\frac{200}{40} = 0.5$$

$$\frac{180}{200} = 0.9$$

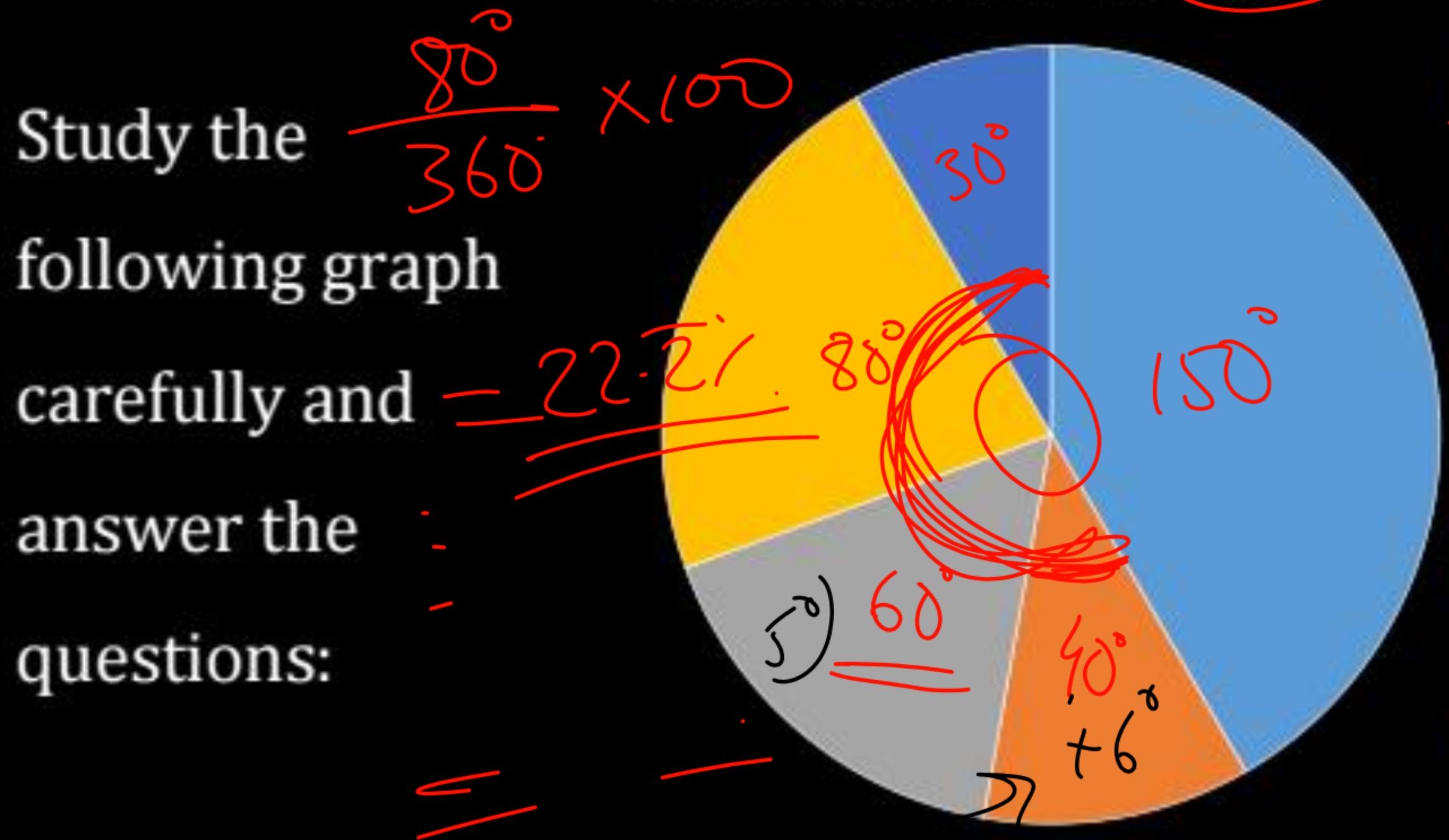
$$\frac{400}{700} = 0.57$$

$$\frac{140}{30} = 0.46$$

$$\frac{250}{400} = 0.625$$



PIE CHART



$$\frac{30}{360} \times 100 = 8.33\%$$

■ UNEMPLOYED

■ SELF EMPLOYED - 40°

■ PUBLIC SECTOR - 60°

■ PRIVATE SECTOR - 80°

■ GOVT.SECTOR - 30°

Brainstorming 1

If 10% of public sector people resign and becomes self-employed, find the increase percent in self-employed population.

15% ↑

Brainstorming 2

What percentage of employed people are working in government sector?

14.28%.

Brainstorming 3

Find the number of people who are unemployed.

2500

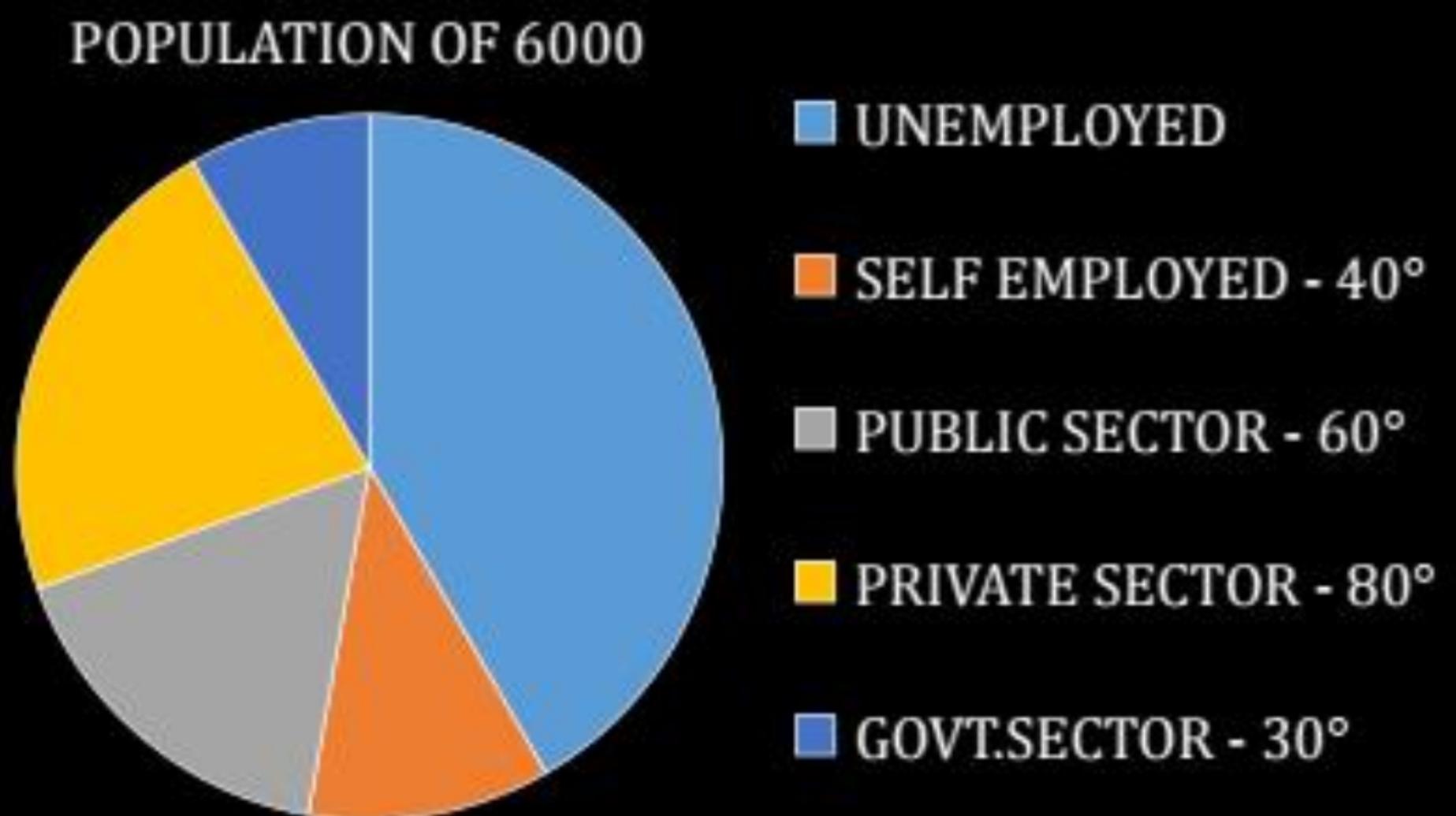
Brainstorming 4

If private sector employees are to be mentioned in above chart in the form of percentage, it would be%.

22.2%

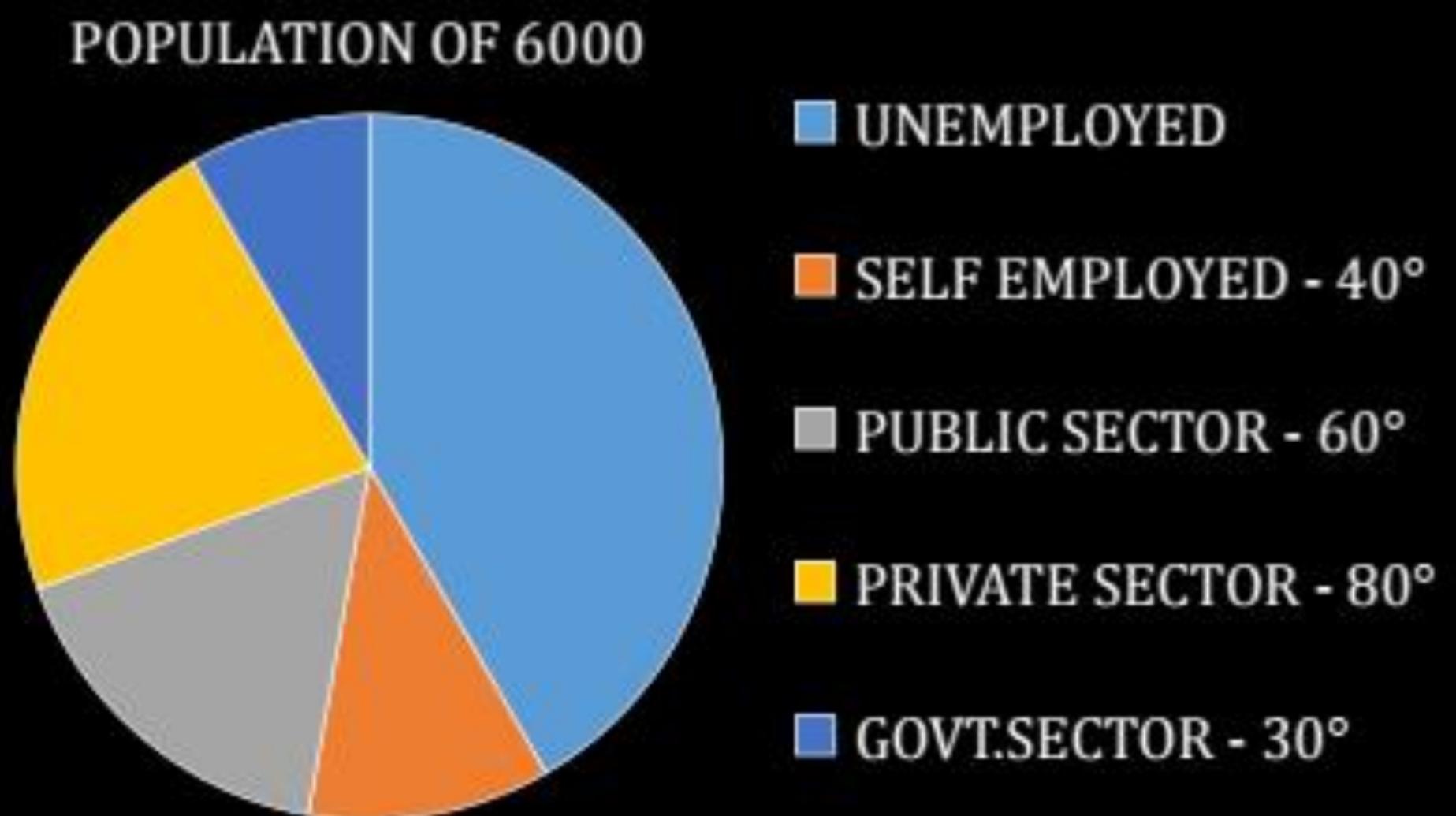
Q.1

Who among the following employees earns maximum bonus in comparison to his total income?

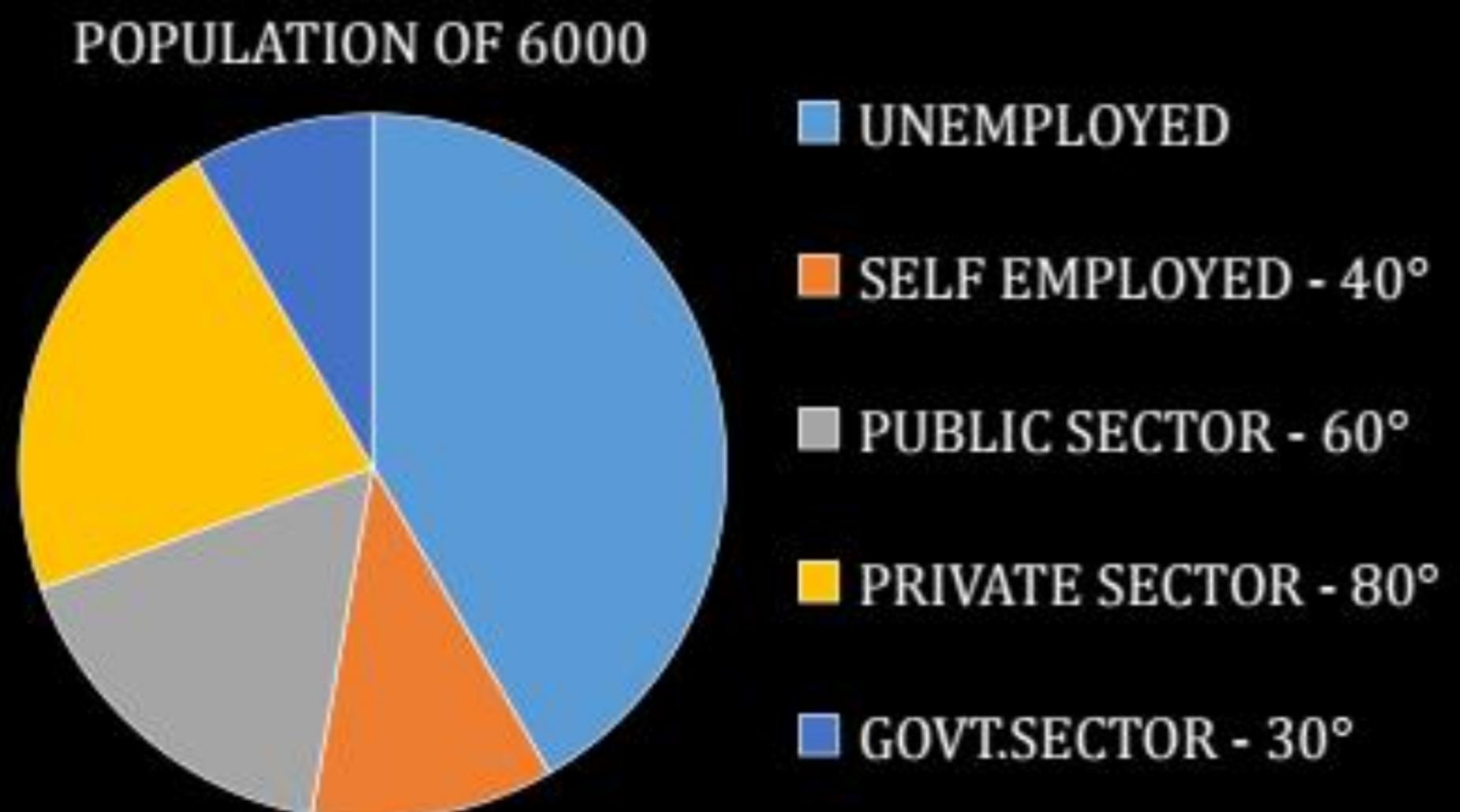


Q.2

What percentage of employed people are working in government sector?

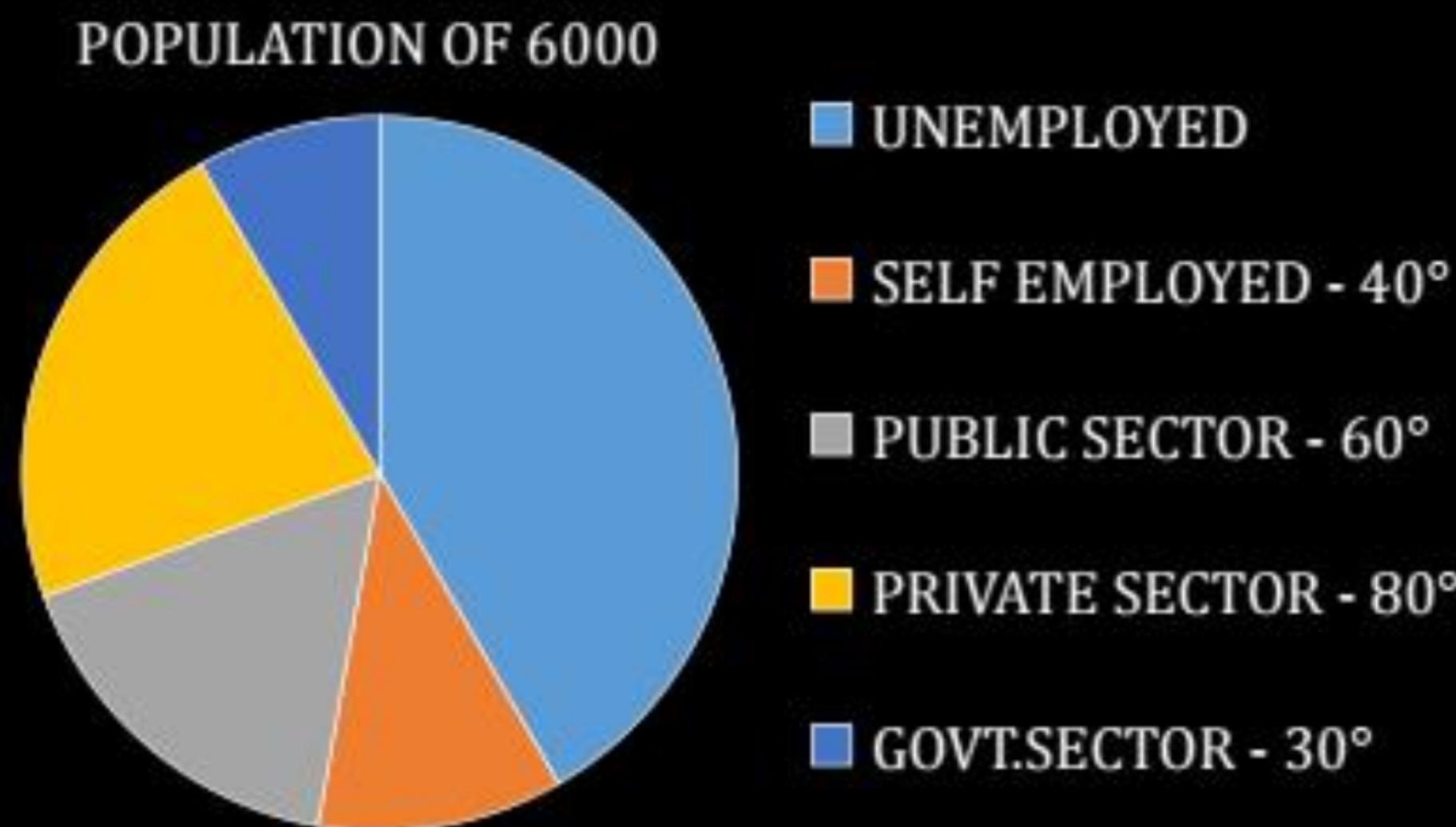


Q.3 Find the number of people who are unemployed.



Q.4

If private sector employees are to be mentioned in above chart in the form of percentage, it would be%.



Railway Time-Table of Geetanjali Express

City	Arrival Time (hrs)	Departure Time (hrs)	<u>Cumulative Mileage</u>
BOMBAY	---	0900	0
IGATPURI	1100	1102	20 C 80
NASIK	1450	1455	281
BHUSA WAL	1710	1712	391
AKOLA	2240	2245	730
NAGPUR	0005	0015	800
DURG	0100	0102	845
JAMSHEDPUR	0415	0428	995
CALCUTTA	0625	---	1100

Q.1

The largest run for the train between two successive halts is?

- A Jamshedpur-Calcutta 185
- B ~~Bombay-Calcutta~~
- C ~~Bhusawal-Akola~~ 339
- D Akola-Nagpur 26

City	Arrival Time (hrs)	Departure Time (hrs)	Cumulative Mileage
BOMBAY	---	0900	0
IGATPURI	1100	1102	80
NASIK	1450	1455	281
BHUSAWAL	1710	1712	391
AKOLA	2240	2245	730
NAGPUR	0005	0015	800
DURG	0100	0102	845
JAMSHEDPUR	0415	0428	995
CALCUTTA	0625	---	1100

Q.2

The average speed the train maintained between two successive stations was the highest between?

- A Bhusawal-Akola *61 miles/h*
- B Jamshedpur-Calcutta *52.5 miles*
- C Nagpur-Durg *60 miles/h* *339* *5.5*
- D Bombay-Igatpuri *40 miles*

City	Arrival Time (hrs)	Departure Time (hrs)	Cumulative Mileage
BOMBAY	---	<u>0900</u>	0
IGATPURI	<u>1100</u>	1102	<u>80</u>
NASIK	1450	1455	281
BHUSAWAL	1710	1712	391
AKOLA	2240	2245	730
NAGPUR	0005	0015	800
DURG	0100	0102	845
JAMSHEDPUR	0415	0428	995
CALCUTTA	0625	---	1100

Q.3

The average speed that the train maintained between Bombay and Calcutta was nearly equal to?

- A 42 miles/hr
- B 52 miles/hr
- C 61 miles/hr
- D 74 miles/hr

1180
2

City	Arrival Time (hrs)	Departure Time (hrs)	Cumulative Mileage
BOMBAY	---	0900	0
IGATPUR	1100	1102	80
NASIK	1450	1455	281
BHUSAWAL	1710	1712	391
AKOLA	2240	2245	730
NAGPUR	0005	0015	800
DURG	0100	0102	845
JAMSHEDPUR	0415	0428	995
CALCUTTA	0625	---	1100

Q.4

If we consider the journey that begins at Bombay and ends at Calcutta, the train has the longest halt at?

A Bombay

B Calcutta

C Jamshedpur

D Nagpur

City	Arrival Time (hrs)	Departure Time (hrs)	Cumulative Mileage
BOMBAY	---	<u>0900</u>	0
IGATPURI	1100	1102	80
NASIK	1450	1455	281
BHUSAWAL	1710	1712	391
AKOLA	2240	2245	730
NAGPUR	0005	0015	800
DURG	0100	0102	845
JAMSHEDPUR	0415	0428	995
CALCUTTA	0625	---	1100

Q.5

The train begins its journey from Calcutta to Bombay eight hours after it has arrived Calcutta. If the train left Bombay on Monday, on what day will it have returned to Bombay? (Assume that on the return journey the train maintains the same average speed as on onward journey)

A Monday

B Tuesday

C Wednesday

D None of these

Monday

City	Arrival Time (hrs)	Departure Time (hrs)	Cumulative Mileage
BOMBAY	---	0900	0
IGATPURU	1100	1102	80
NASIK	1450	1455	281
BHUSAWAL	1710	1712	391
AKOLA	2240	2245	730
NAGPUR	0005	0015	800
DURG	0100	0102	845
JAMSHEDPUR	0415	0428	995
CALCUTTA	0625	---	1100

8hr

thank you

