Imp

DATA INTERPRETATION-I

Numerical Data Presentation

1. Data Tables: Data is presented in the form of simple table into rows and columns.

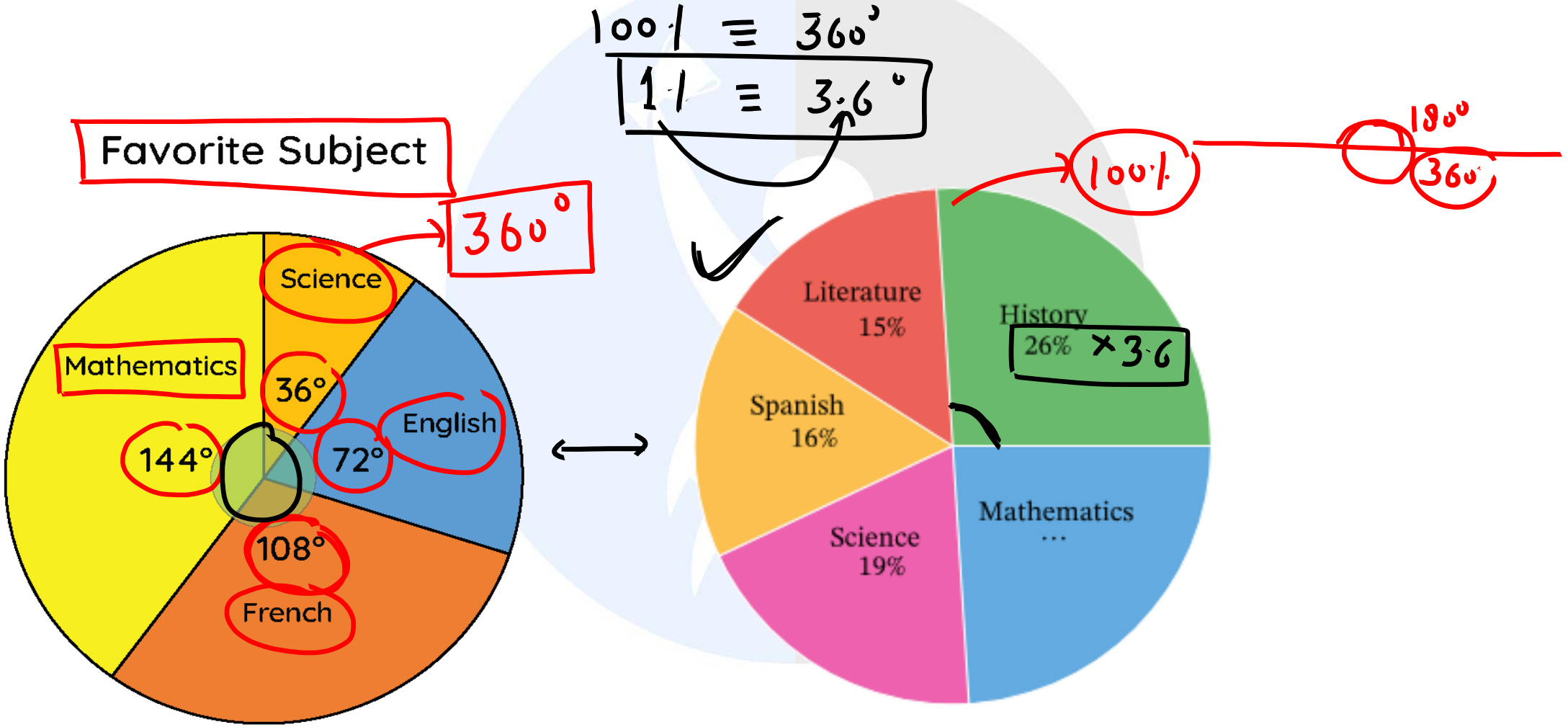
Punjab → 1999 → Qual

UP → 2000 → Sel → 70

Year	Delhi			H.P			U.P			Punjab			Haryana		
	App	Qual	Sel	App	Qual	Sel	App	Qual	Sel	App	Qual	Sel	App	Qual	Sel
1997	8000	850	94	7800	810	82	7500	720	78	8200	680	85	6400	700	75
1998	4800	500	48	7500	800	65	5600	620	85	6800	600	70	7100	650	75
1999	7500	640	82	7400	560	70	4800	400	48	6500	525	65	5200	350	55
2000	9500	850	90	8800	920	86	7000	650	70	7800	720	84	6400	540	60
2001	9000	800	70	7200	850	75	8500	950	80	5700	485	60	4500	600	75

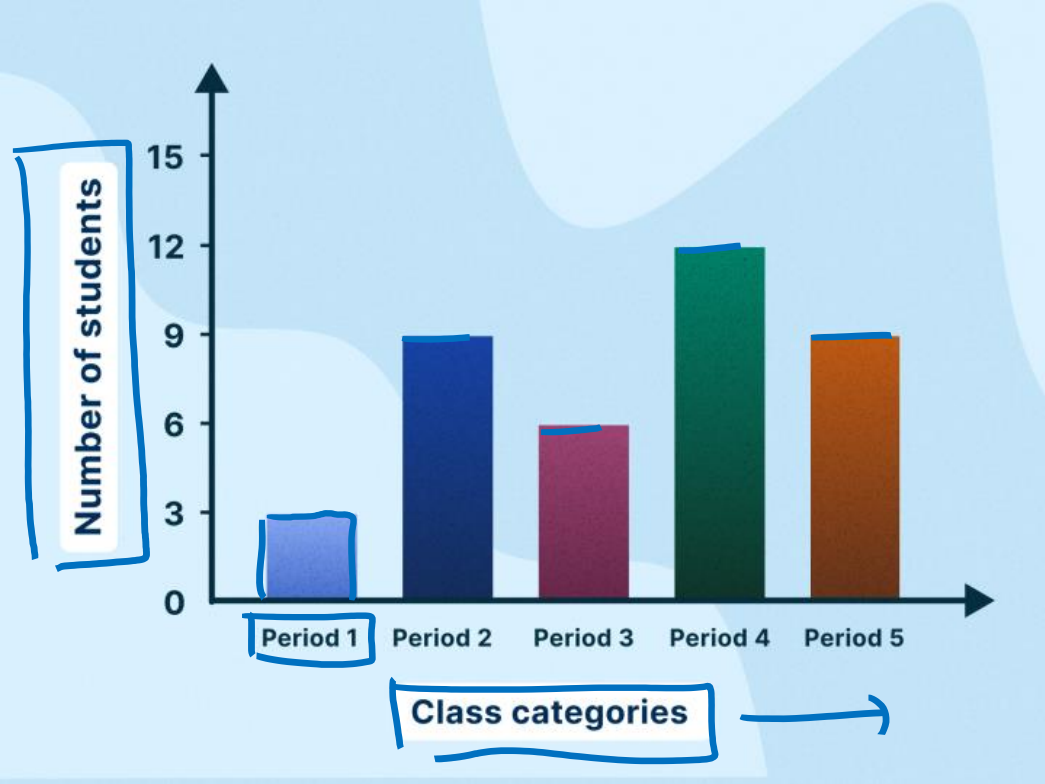
2. Pie Chart:

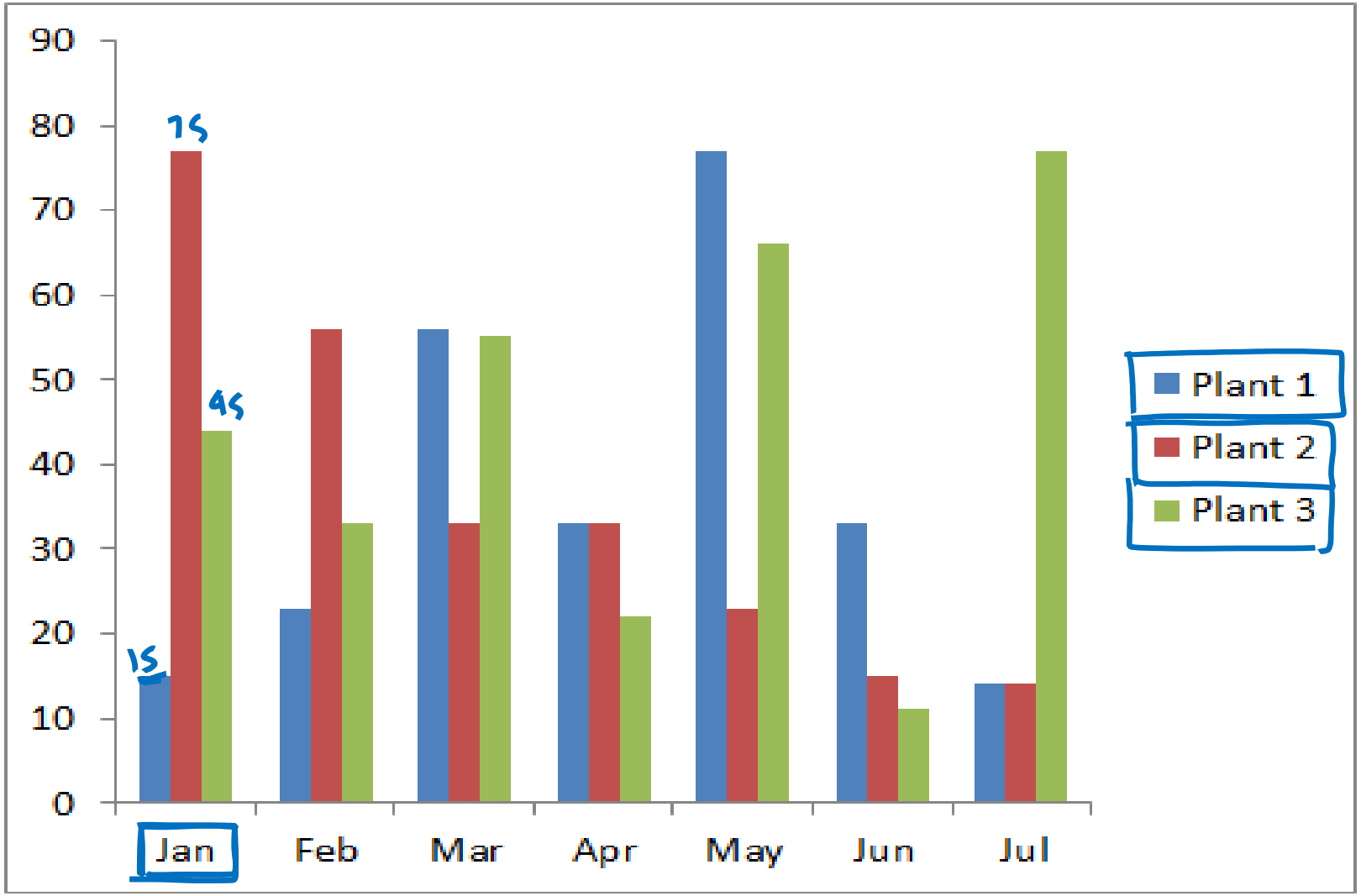
A pie chart is a circular chart in which data is displayed in the form of pie slices.

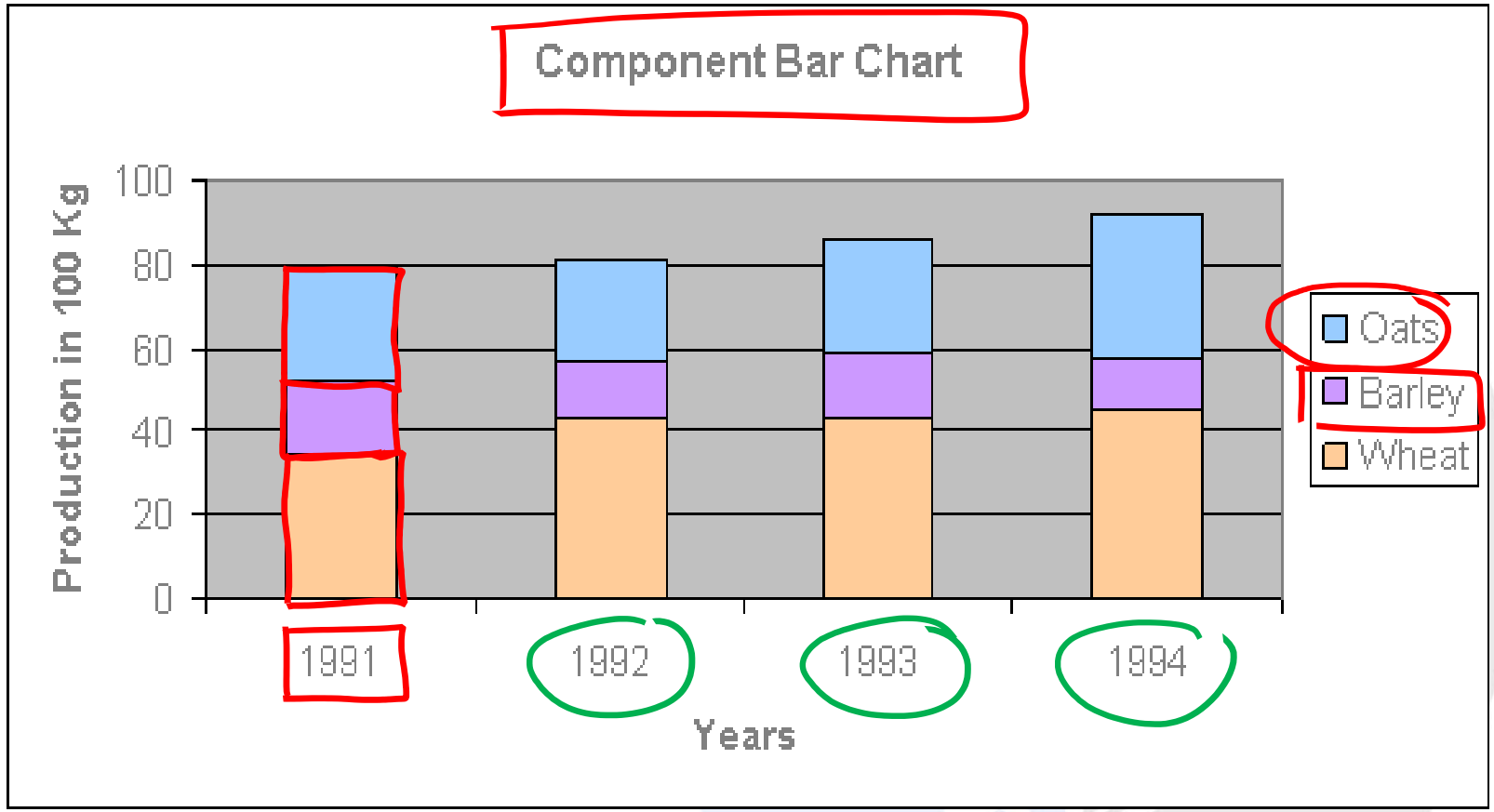


3. Bar Chart:

A bar chart portrays a visual interpretation of data with the help of vertical or horizontal rectangular bars where the lengths of the bars are proportional to the data to be represented.

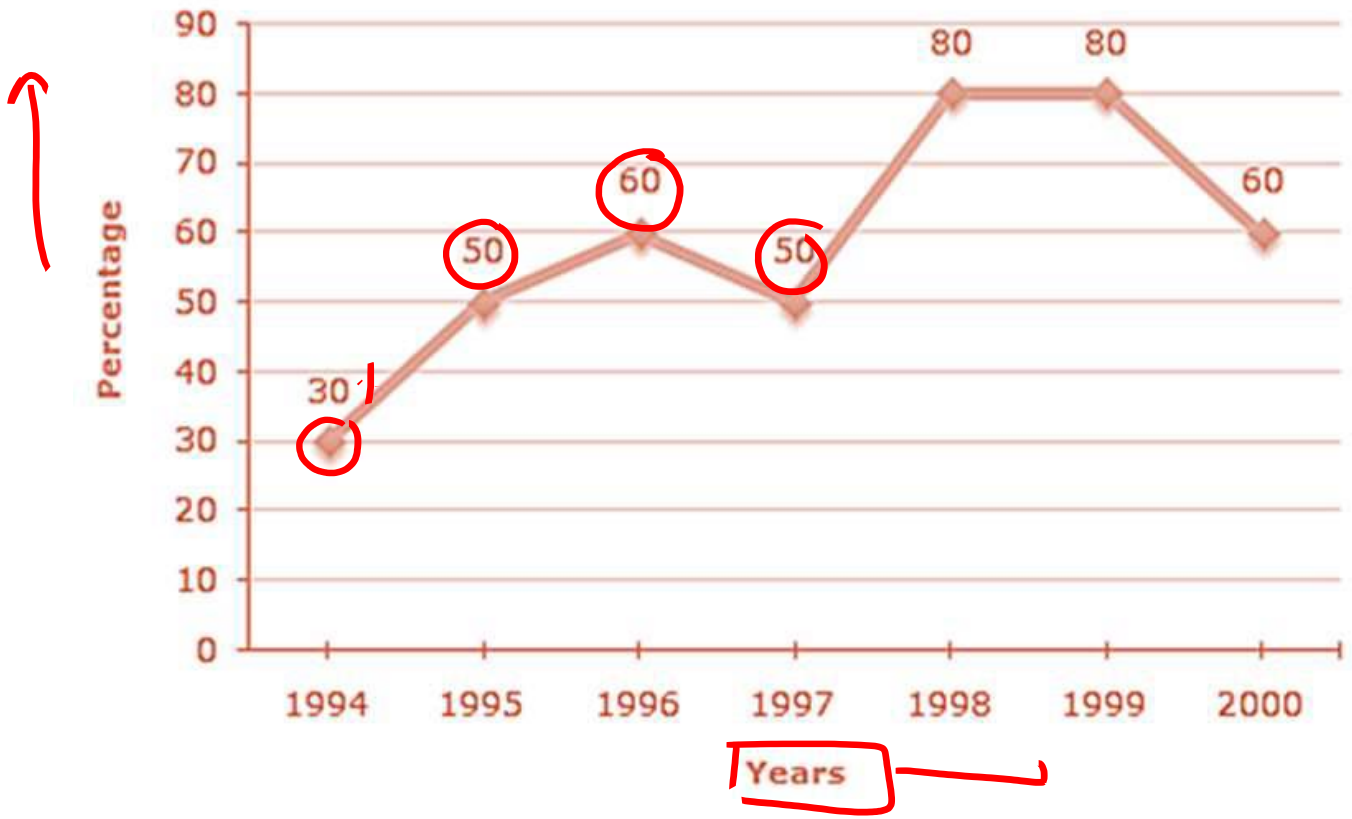



90
80
70
60
50
40
30
20
10
0
Jan
Feb
Mar
Apr
May
Jun
Jul
Plant 1
Plant 2
Plant 3

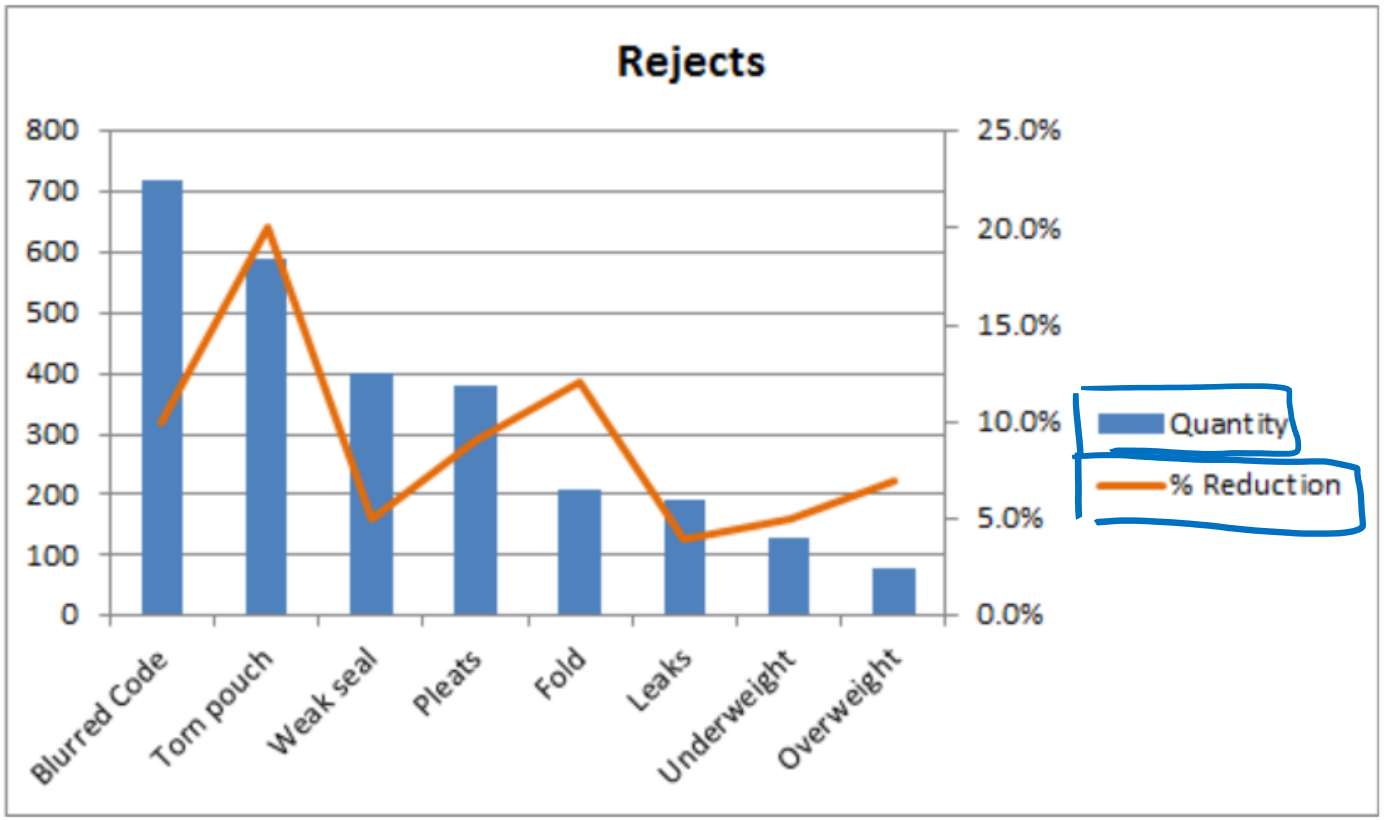

Component Bar Chart
Production in 100 Kg
100
80
60
40
20
0
1991
1992
1993
1994
Years
Oats
Barley
Wheat

4. Line Graph:

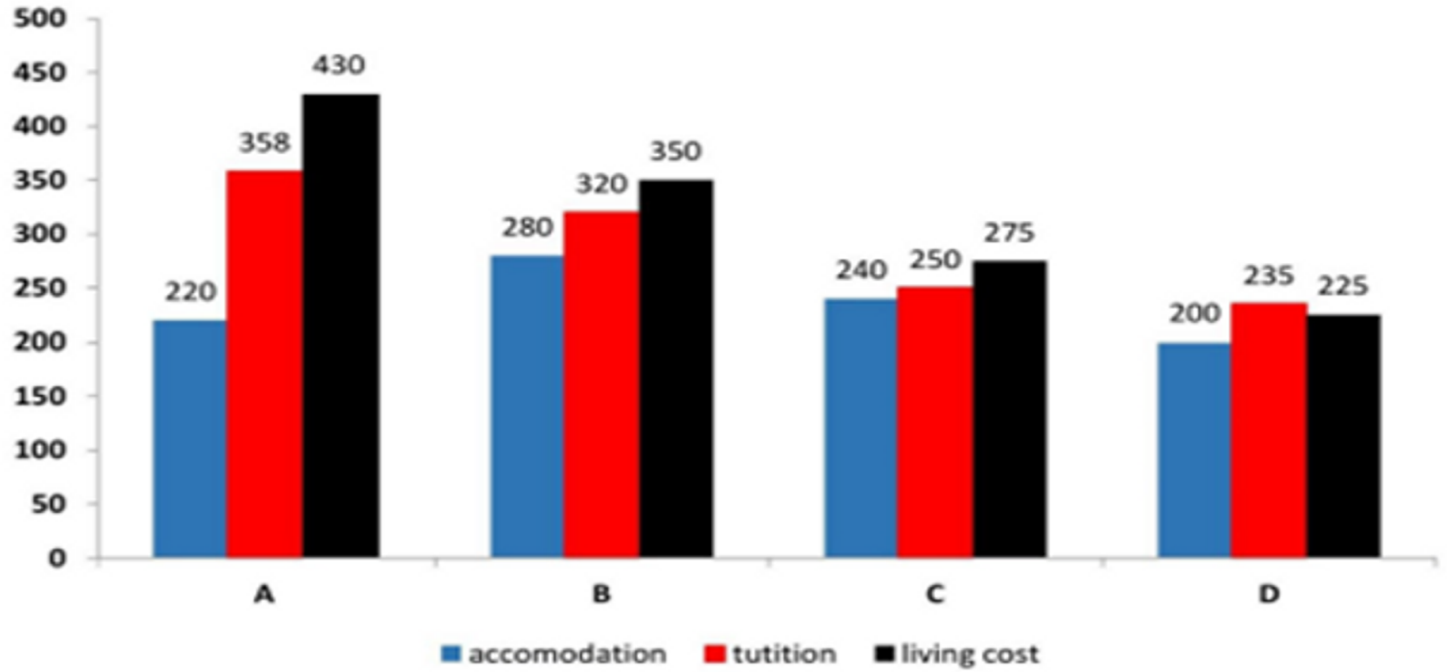
A line graph displays information as a series of data points called 'markers' connected by straight line segments. Line graphs display data in two dimensions x-axis and the y-axis.



4. Mix graph :


Rejects
800
700
600
500
400
300
200
100
0
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
Quantity
% Reduction
Blurred Code
Torn pouch
Weak seal
Pleats
Fold
Leaks
Underweight
Overweight

Expenditure of studying abroad	
Country	US ($)
A	875
B	735
C	540
D	435



Percentage ⇒

Q1) B is what % of A? → $\frac{B}{A} \times 100 = \frac{30}{20} \times 100 = 150$

Q2) B is what % more than A? → $\frac{(B-A)}{A} \times 100 = \frac{(30-20)}{20} \times 100 = 50\%$

Q3) A is what % less than B? → $\frac{(B-A)}{B} \times 100 = \frac{10}{34} \times 100 = \frac{100}{3} = 33\frac{1}{3}\%$

② Ratio

A	B
~~150~~	~~75~~
6	~~3~~ 2
2	1

③ Average = Sum of total Quantity / No. of items

Given below table shows the number of cakes of five different types sold by a shopkeeper on four different days. Study the data and answer the questions that follow:

What is the ratio of no. of cakes of type B sold by the shopkeeper on Saturday and Monday together to the no. of cakes of type E sold by him on the same days?

(a) 72:53 (b) 88:67 (c) 98:73 (d) 92:71

Ans

Ratio = $\frac{B(\text{Sat} + \text{Mon})}{E(\text{Sat} + \text{Mon})} = \frac{88}{67}$

Days/Type of Cake	A	B	C	D	E
Saturday	25	28	35	50	38
Sunday	35	65	48	42	47
Monday	38	60	40	24	29
Tuesday	46	54	55	44	30

What is average no. of cakes of type C sold by shopkeeper on Saturday, Sunday and Tuesday?

(a) 38 (b) 40 (c) 42 (d) 46

Days/Type of Cake	A	B	C	D	E
Saturday	25	28	35	50	38
Sunday	35	65	48	42	47
Monday	38	60	40	24	29
Tuesday	46	54	55	44	30

$$\text{Average} = \frac{35+48+55}{3} = \frac{138}{3} = 46$$

The no. of cakes of type D and E sold together on Tuesday is what percent of the no. of cakes of type A & B sold together on Sunday?

(a) 72% (b) 75% (c) 74% (d) 78%

Days/Type of Cake	A	B	C	D	E
Saturday	25	28	35	50	38
Sunday	35	65	48	42	47
Monday	38	60	40	24	29
Tuesday	46	54	55	44	30

$$? = \frac{(D+E)\ \text{Tues}}{(A+B)\ \text{Sun}} \times 100$$

$$= \frac{74}{100} \times 100$$

74 %

Ans

What is the difference between the total no. of cakes of all the given types sold by shopkeeper on Monday and the total no. of cakes of all the given types sold by shopkeeper on Tuesday?

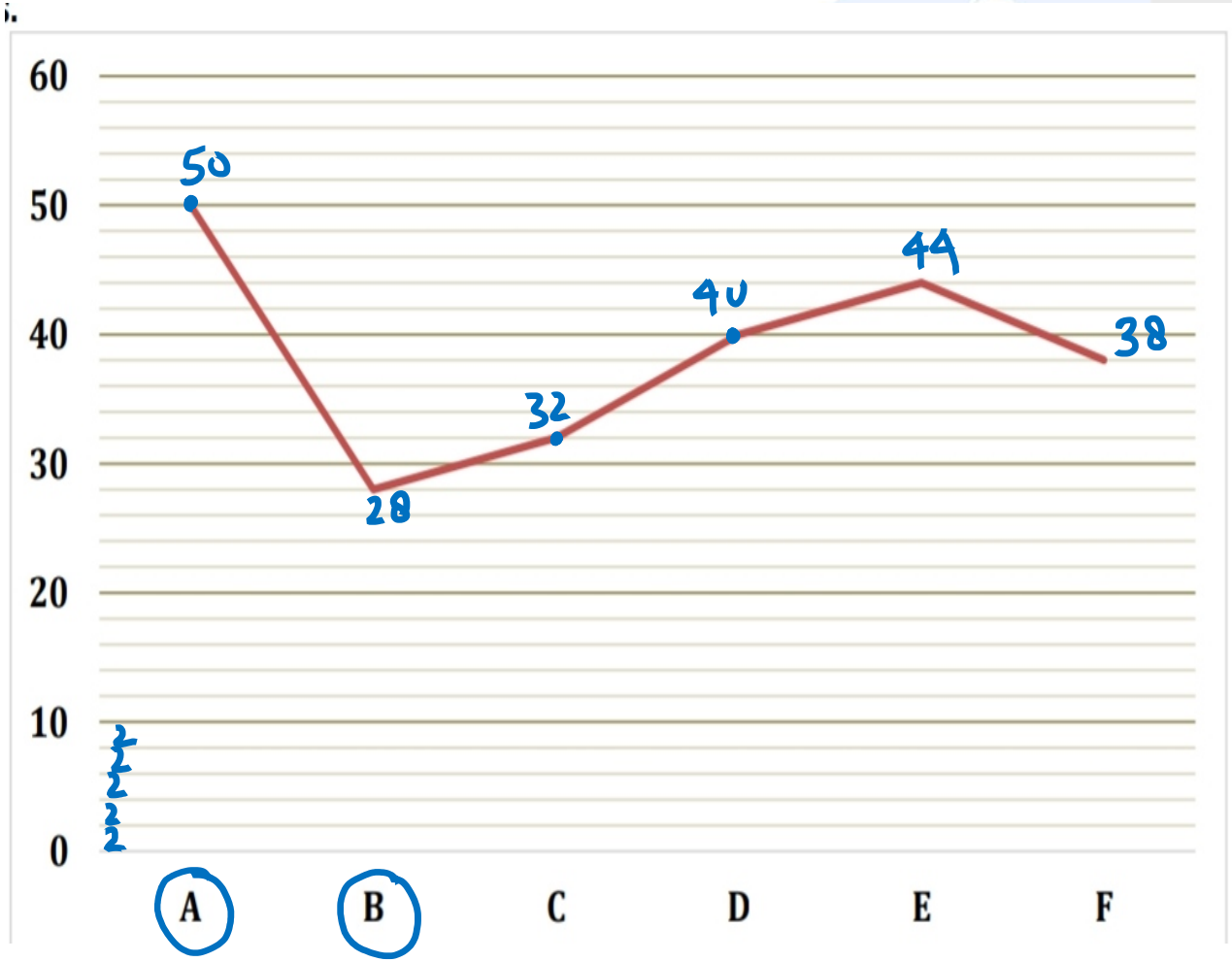
(a) 38 (b) 44 (c) 42 (d) 40

Days/Type of Cake	A	B	C	D	E
Saturday	25	28	35	50	38
Sunday	35	65	48	42	47
Monday	38	60	40	24	29
Tuesday	46	54	55	44	30

+8 -6 +15 +20 +1

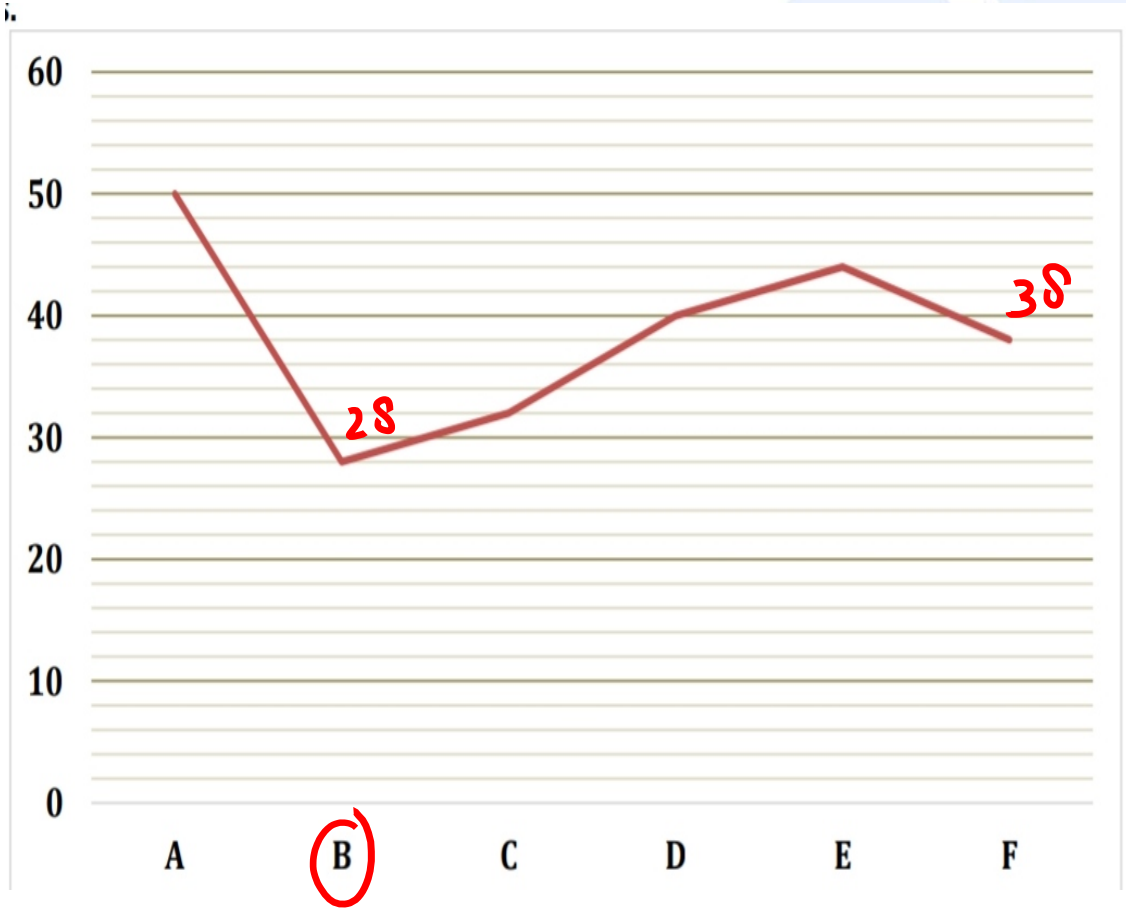
38 Ans

The line graph given below shows the total number of posts (Photos + Videos) shared by six (A, B, C, D, E & F) people in December 2019. Read the data carefully and answer the questions.



In January 2020 total posts shared by B & F is 12 and 15 more than previous month respectively, then find the total number of the post shared by B & F in January 2020?

(a) 95 (b) 91 (c) 93 (d) 97



B → 28 + 12 = 40

F → 38 + 15 = 53

93

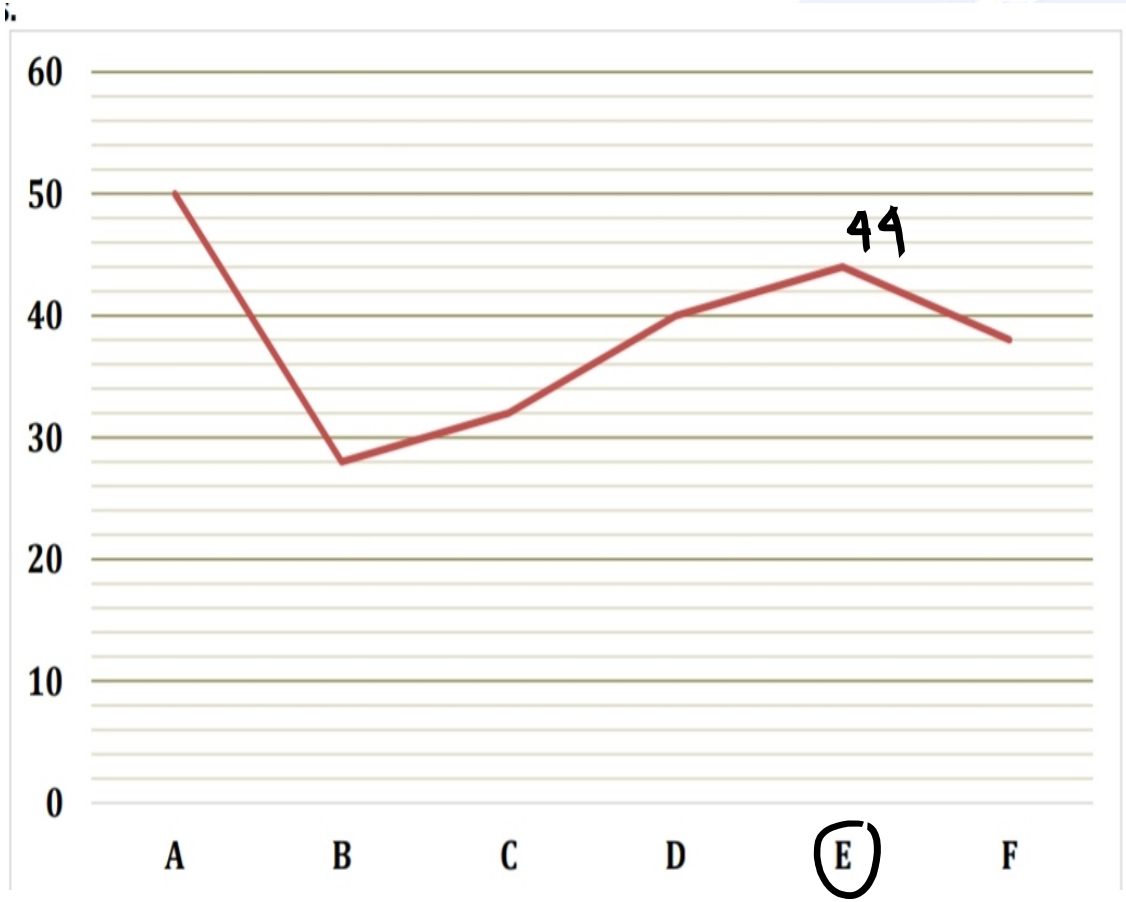
Find the average number of posts shared by A, C & F?

(a) 42 (b) 48 (c) 40 (d) 36

$$\text{Av.} = \frac{50 + 32 + 38}{3} = \frac{120}{3} = 40$$

Total photos shared by E is four more than total videos shared by him, then find total videos shared by E?

(a) 24 (b) 20 (c) 28 (d) 22



$P - V = 4$

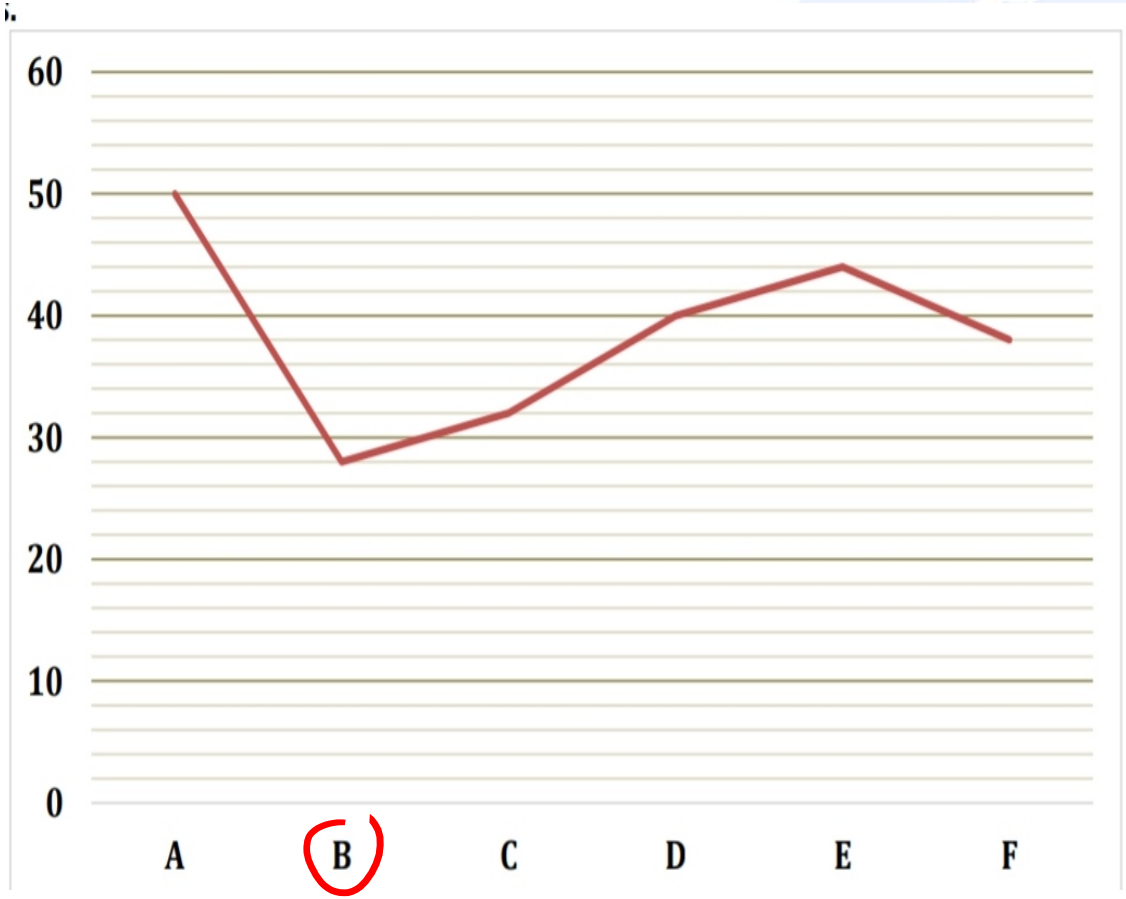
$P + V = 44$

$+2V = +40$

$V = 20$

If the ratio of total photos to total videos shared by B is 5: 9, then find total photos shared by B?

(a) 10 (b) 18 (c) 12 (d) 14



P V

5 : 9 ≡ 5/14 , 9/14

Photos = $\frac{2}{28} \times \frac{5}{14} = 10$

Videos = $\frac{2}{28} \times \frac{9}{14} = 18$

Consider the following table that shows the percentage distribution of workforce of India and ratio of male to female work force of India in different employment sectors during a given year. Total work force in all the sector together is 80 LAKHS. Based on the data contained in the table answer the question

Employment Sector	Workforce Of India	
	% OF DISTRIBUTION	Ratio Of Male To Female (M:F)
	15%	3:2
Service{SE)		
Sales{SA)	12%	5:3
Construction & Maintenance(M) (CM)	9%	5:4
Professional{PR)	18%	5:7
Management{MA)	21%	3:4
Production & Transport(PT)	19%	5:3
Others(OT)	6%	3:5

What is the ratio of the number of female workforce in CM sector compared to the number of male workforce in PR and OT sectors put together?

(1) 17 : 39 (2) 16 : 37 (3) 16 : 35 (4) 16 : 39

Employment Sector	Workforce Of India	
	% OF DISTRIBUTION	Ratio Of Male To Female (M:F)
	15%	3:2
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Production & Transport(PT)	19%	5:3
Others(OT)	6%	3:5

$$\text{Ratio} = \frac{CM(F)}{PR+OT(M)} = \frac{80 \times \frac{9}{100} \times \frac{4}{9}}{\left(80 \times \frac{18}{100} \times \frac{5}{12}\right) + \left(80 \times \frac{6}{100} \times \frac{3}{8}\right)}$$

$$= \frac{4}{\frac{15}{2} + \frac{9}{4}} = \frac{4}{\frac{30+9}{4}}$$

$$\frac{16}{39} = 16:39$$

Ans

The number of male workforce in SA and MA sectors put together is approximately what percent of the total number of workforce in PT sector?

(1) 82% (2) 87% (3) 89% (4) 85%

Employment Sector	Workforce Of India	
	% OF DISTRIBUTION	Ratio Of Male To Female (M:F)
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Sales{SA)	12%	5:3
Construction & Maintenance(M)	9%	5:4
Professional{PR)	18%	5:7
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Production & Transport(PT)	19%	5:3
Others(OT)	6%	3:5

$$= \frac{\left(12\frac{3}{8}\times\frac{5}{8}\right)+\left(21\frac{3}{7}\times\frac{3}{7}\right)}{19}\times 100$$

$$= \frac{\frac{15}{2}+9}{19}\times 100$$

$$= \frac{15+18}{2}\times\frac{1}{19}\times 100$$

$$\frac{33\times 50}{19} = \frac{1650}{19} \simeq 87.1$$

The number of female workforce in SE and PR sectors put together is what percent of the number of male workforce in CM sector?

(1) 330% (2) 318% (3) 320% (4) 80%

Employment Sector	Workforce Of India	
	% OF DISTRIBUTION	Ratio Of Male To Female (M:F)
Service(SE)	15%	3:2
Sales{SA}	12%	5:3
Construction & Maintenance(M)	9%	5:4
Professional{PR}	18%	5:7
Management{MA}	21%	3:4
Production & Transport(PT)	19%	5:3
Others(OT)	6%	3:5

$$\frac{(SE+PR)(F)}{(CM)(M)} \times 100$$

$$\frac{\left[15 \times \frac{2}{5}\right] + \left[10 \times \frac{7}{12}\right]}{2} \times 100$$

$$\frac{\left(6 + \frac{21}{2}\right)}{5} \times 100$$

$$\frac{12+21}{2} \times 20 = 330\%$$

Ans

THANK YOU