i) $D_1 = \dfrac{2 \times N}{10} = \dfrac{2 \times 50}{10} = \dfrac{100}{10} = 10$
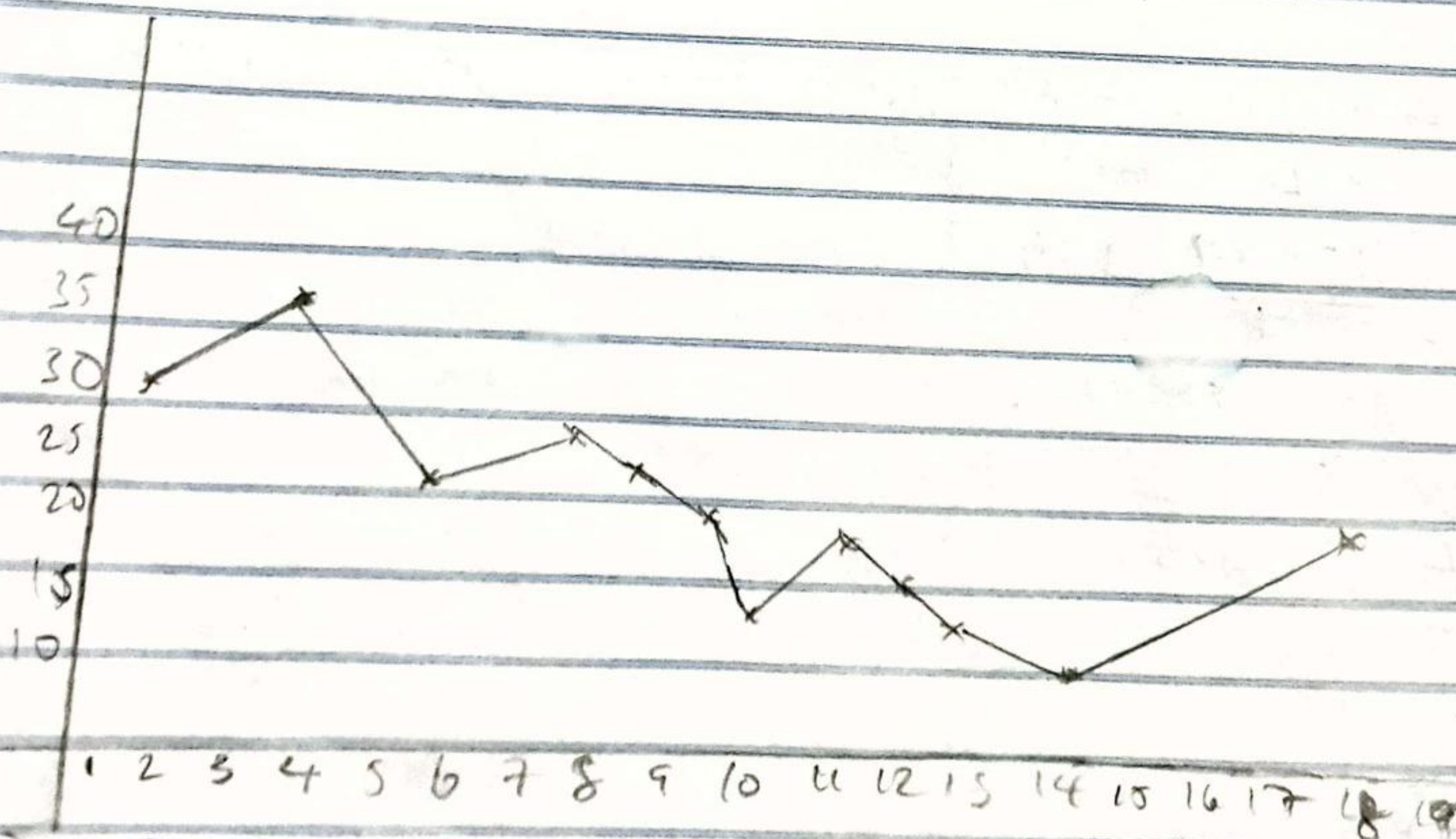
ii) $P_{25} = \dfrac{25N}{100} = \dfrac{25 \times 50}{100} = 12.5$

②

Week of Eap. x	No. of gets y	xy	x^2
7	26	ʼ82	49
9	20	180	81
6	28	168	36
14	16	224	196
18	23	414	324
12	18	216	144
10	24	240	100
4	26	104	16
2	38	76	2
11	22	242	121
1	32	32	1
8	25	200	64
102	298	2278	134

SCATTER DIAGRAM.

Regression equation

$$= \frac{n\Sigma xy - \Sigma x \Sigma y}{n\Sigma x^2 - \Sigma(x)^2}$$

$$= \frac{12 \times 2478 - 102 \times 298}{12 \times 1134 - (102)^2}$$

$$\frac{27336 - 30396}{13608 - 10404}$$

$$\frac{-3060}{3204}$$

$$= -0.95$$

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Class Interval	x	Class Boundary	Freq f	fx	cf
10.1 - 19.0	14.55	9.6 - 19.5	4	58.20	4
19.1 - 29.0	24.05	18.6 - 29.5	9	216.45	13
29.1 - 39.0	34.05	28.6 - 39.5	7	238.35	20
39.1 - 49.0	44.05	38.6 - 49.5	9	396.45	29
49.1 - 59.0	54.05	48.6 - 59.5	8	432.40	37
59.1 - 69.0	64.05	58.6 - 69.5	6	384.30	43
69.1 - 79.0	74.05	68.6 - 79.3	3	222.15	46
79.1 - 89.0	84.05	78.6 - 89.5	1	84.05	47
89.1 - 99.0	94.05	88.6 - 99.5	2	188.1	49
99.1 - 109.0	104.05	99.6 - 109.5	1	104.05	50
			50	2324.5	

i) Mean $= \dfrac{\Sigma fx}{\Sigma f}$

$= \dfrac{2324.5}{50} = 4.6.49$

$\therefore x = 46.5$

ii) Median $= L + \left[\dfrac{N/2 - F}{f\ med}\right] c$

$= 39.1 + \left[\dfrac{25 - 29}{9}\right] 9.9$

$= 39.1 + \left[\dfrac{25 - 29}{9}\right] 9$

$= 39.1 + (-4.4)$

$= 34.7$

iii) $Q3 = \dfrac{3N}{4} = \dfrac{3 \times 50}{4} = \dfrac{150}{4} = 37.5$