C.I	10-20	20-30	30-40	40-50	50-60	60-70
f	6	7	9	10	8	7

C.I	70-80
f	3

C.I	f	less than osive	C.F
10 - 20	6	20	6
20 - 30	7	30	13
30 - 40	9	40	22
40 - 50	10	50	32
50 - 60	8	60	40
60 - 70	7	70	47
70 - 80	3	80	50
	50		

$Q_1 = \left(\frac{\Sigma f}{4}\right)^{th}$ term

$= \left(\frac{50}{4}\right)^{th}$ term

$= 12.5^{th}$ term

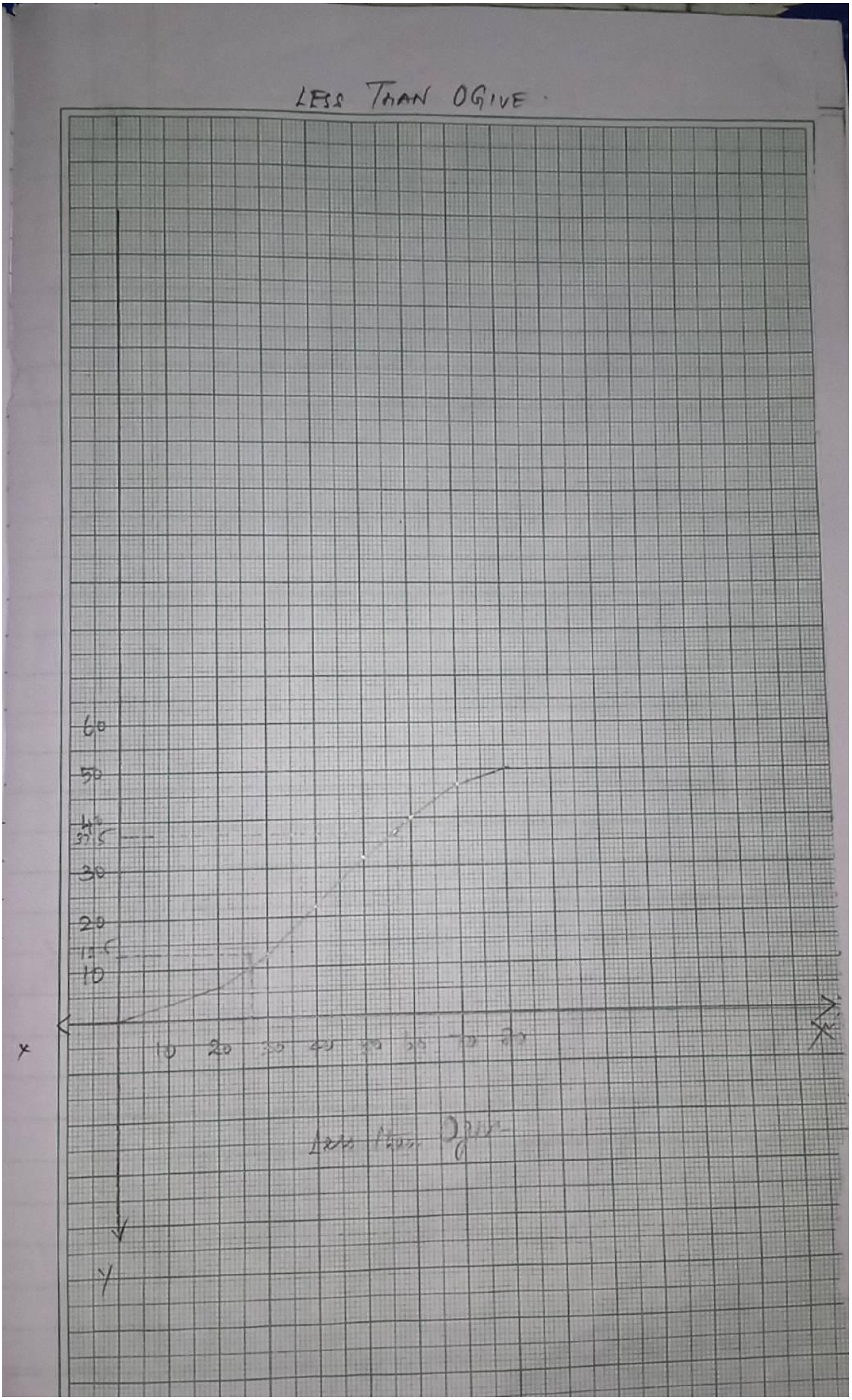
$Q_2 = 3\left(\frac{\Sigma f}{4}\right)^{th}$ term

$= 3\left(\frac{50}{4}\right)^{th}$ term

$= (3 \times 12.5)$

$= 37.5$ term.

LESS THAN OGIVE.



Date: 26.09.022
Day: Monday

Example 2:

Determine the median for the following data graphically :-

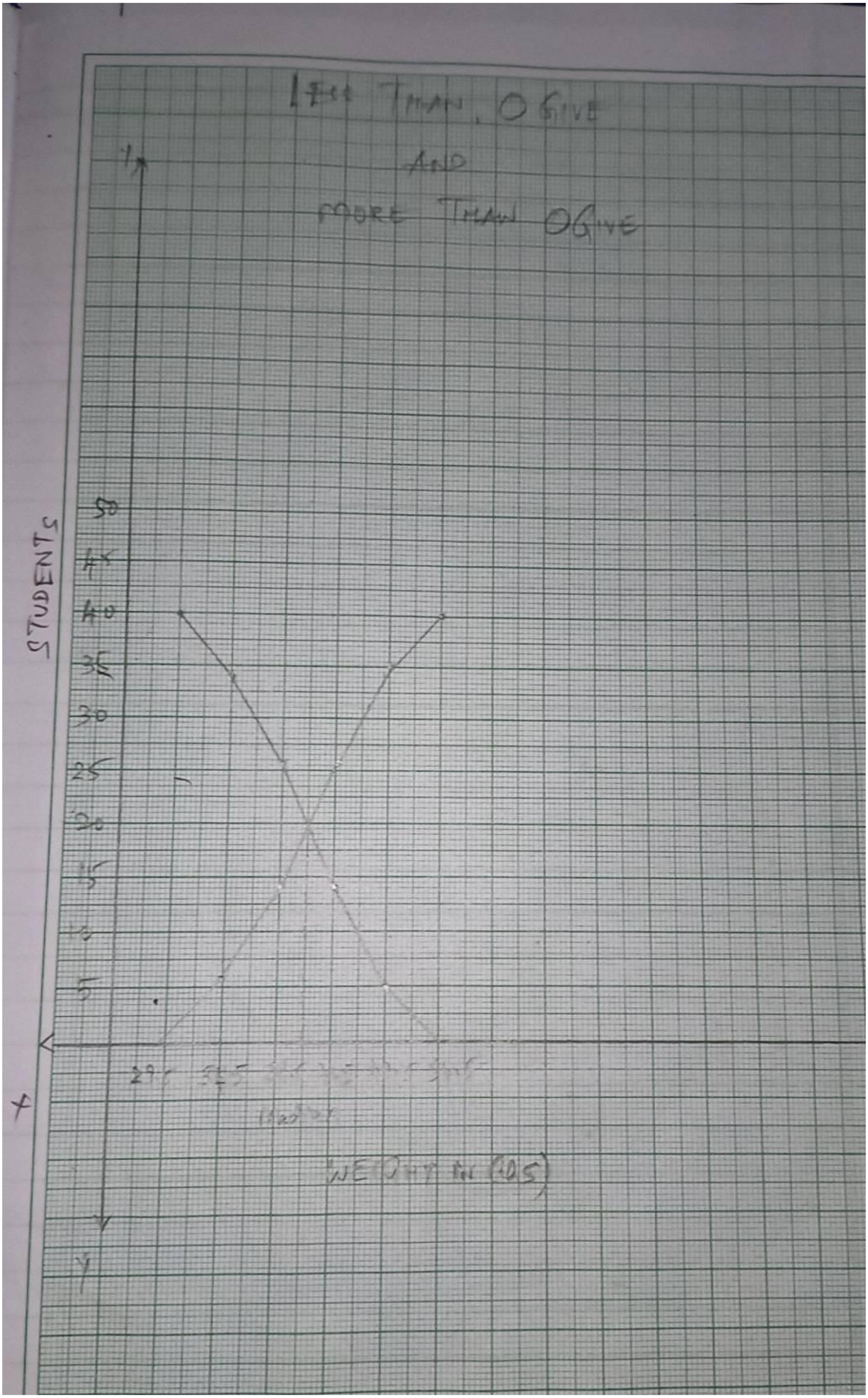
Weight (kgs)	30-34	35-39	40-44	45-49	50-54
No. of students	6	8	12	9	5

Solution :- Find less than Ogive and more than Ogive

C.I	f	less than	CF	More than	C.F
29.5 - 34.5	6	34.5	6	29.5	40
34.5 - 39.5	8	39.5	14	34.5	34
39.5 - 44.5	12	44.5	26	39.5	26
44.5 - 49.5	9	49.5	35	44.5	14
49.5 - 54.5	5	54.5	40	49.5	5
	40				

The value of the variable corresponding to the point of intersection of two ogives is the median

∴ Median = 42 //



Example 1:

Draw a Lorenz curve from the following data to study the extent of dispersion graphically :-

Salary (in Rs) : 100 150 200 250 300

No. of workers 20 10 8 10 2

Salary	Cumulative Salary	% of Cumulative Salary	No. of workers (f)	Cumulative frequency	% of Cumulative
100	100	$\frac{100}{1000} \times 100 = 10$	20	20	$\frac{20}{50} \times 100 = 40$
150	250	$\frac{250}{1000} \times 100 = 25$	10	30	$\frac{30}{50} \times 100 = 60$
200	450	$\frac{450}{1000} \times 100 = 45$	8	38	$\frac{38}{50} \times 100 = 76$
250	700	$\frac{700}{1000} \times 100 = 70$	10	48	$\frac{48}{50} \times 100 = 96$
300	1000	$\frac{1000}{1000} \times 100 = 100$	2	50	$\frac{50}{50} \times 100 = 100$

LORENZE CURVE.