

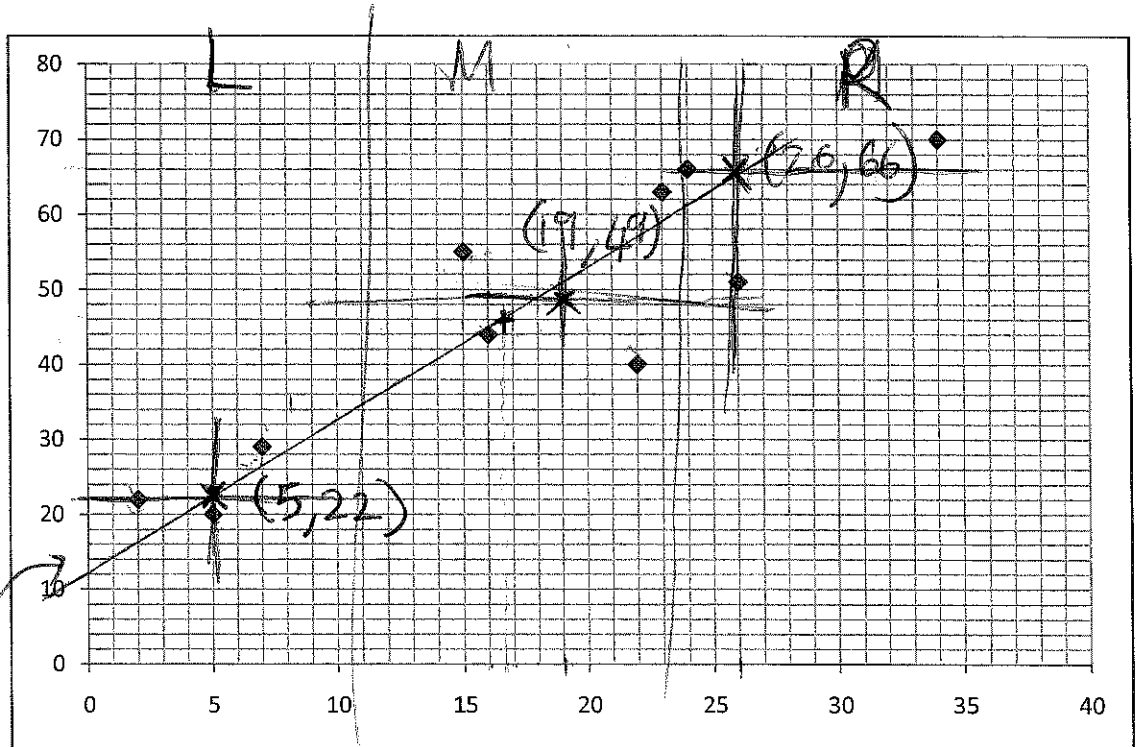
NAME: _____

REGRESSION LINE ANALYSIS

- 4) The following List of value has be graphed for your convenience (GRAPH 2)

GRAPH 2

x	y
2	22
5	20
7	29
15	55
16	44
22	40
23	63
24	66
26	51
34	70



- a) Find the least square regression line using the calculator for GRAPH 2. (hint use regression linear $mx+b$) (1)

$$y = -0.24x + 12.55$$

$$y = 1.56552x + 18.76$$

- b) Find the three median regression equation of the line for GRAPH 2 (you may use the graph but be accurate) (9)

$$\frac{10}{3} = 3.33$$

$$3.33 \approx 3$$

$$L(5, 22) \quad M(19, 49) \quad R(26, 66)$$

$$m = \frac{66 - 22}{26 - 5} = \frac{44}{21} = 2.1$$

L(5, 22)
M(19, 49)
R(26, 66)

Average x $\frac{5 + 19 + 26}{3} = 16.7$

Average y $\frac{22 + 49 + 66}{3} = 45.7$

$$y = 2.1x + c$$

$$45.7 = 2.1 \times 16.7 + c$$

$$c = 10.7$$