#11…Scatter Plot
   …Ruler Line of Best Fit - pencil
      …Median-Median Line of Best Fit – in blue highlight

(12D)

Chapter 1 Review

pg 41 #11 & 13

Time (min) VS Energy Used (in Calories)

Time (min)

Pt 1 (3, 28)
Pt 2 (36, 350)

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$m = \frac{350 - 28}{36 - 3}$$

$$m = \frac{322}{33}$$

$$y = \frac{322}{33}x + b$$

pt 1 (3, 28)

$$28 = \frac{322}{33}(3) + b$$

$$28 = 29.27 + b$$

$$28 - 29.27 = b$$

$$b = -1.27$$

$$y = \frac{322}{33}x - 1.27$$

13. Median-Median line

Group	x	y
1	3, 7	28, 70
2	12, 18	119, 170
3	25, 39	241, 320

Group	Median-x	Median-y
1	5	49
2	19	144.5
3	30	280.5

∴ Median Points are
(5, 49)
(15, 144.5)
(30, 280.5)

$$m = \frac{y_3 - y_1}{x_3 - x_1}$$

$$m = \frac{280.5 - 49}{30 - 5}$$

$$m = \frac{231.5}{25}$$

$$m = 9.29$$

∴ y = 9.29x + b

$$y\text{-int} = \frac{\Sigma y - m\Sigma x}{3}$$

$$\Sigma y = 474 \quad \Sigma x = 50$$

$$m = 9.26$$

$$y\text{-int} = \frac{474 - (9.26)(50)}{3}$$

$$y\text{-int} = \frac{474 - 463}{3}$$

$$y\text{-int} = \frac{11}{3}$$

$$y = 9.29x + \frac{11}{3}$$