1 a)

$$\bar{y}_{1\cdot} = \frac{1}{6}(4.23 + 4.08 + 3.81 + 9.87 + 9.23 + 8.86)$$

$$= 6.68$$

1b)

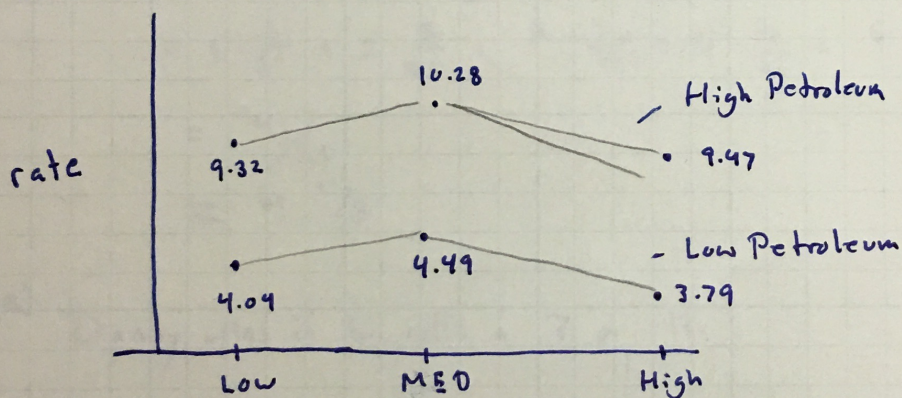$$\bar{y}_{3\cdot} = \frac{1}{2}(3.79 + 9.47)$$

$$= 6.63$$

1c)

$$\bar{y}_{\cdot 2} = \frac{1}{3}(\bar{y}_{12} + \bar{y}_{22} + \bar{y}_{32})$$

$$= \frac{1}{3}(9.32 + 10.28 + 9.47)$$

$$= 9.69$$

1d)

1e)

No - both lines are basically made of parallel segments. If there was a significant interaction, we would expect to see these profiles crossing, or at least having very different overall shapes.

1f) $a_1 = \bar{y}_{1\cdot} - \bar{y}_{\cdot\cdot} = 6.68 - 6.9 = -.22$

1g) $\hat{y}_{12} = a_1 + b_1 + \bar{y}_{\cdot\cdot}$ $b_1 = \bar{y}_{\cdot 1} - \bar{y}_{\cdot\cdot} = 4.11 - 6.9$

$$= -2.79$$

$$= -.22 - 2.79 + 6.9$$

$$= 3.89$$