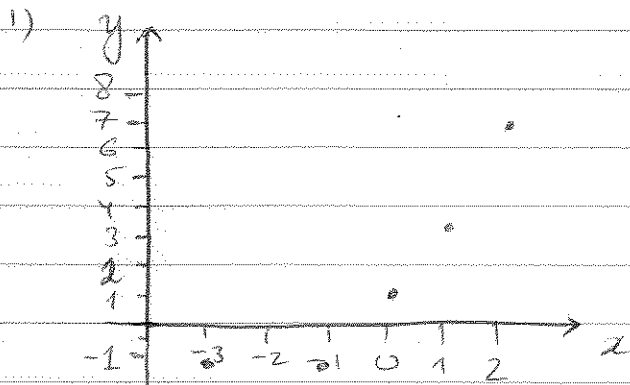


STAT2311 - HW 3

850 (1)



2) $\hat{y} = ax + b$

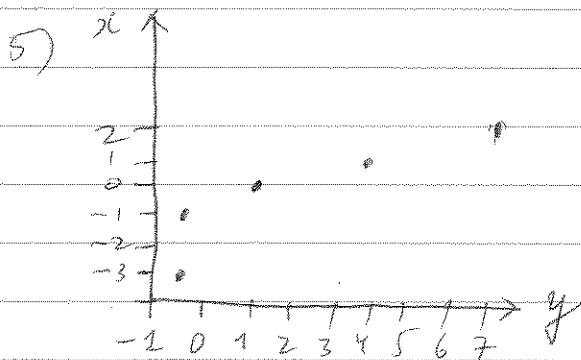
$$a = \frac{19.5 - 5(-0.2)(2.1)}{14.8} = \frac{5.4}{3.7} = 1.46$$

$$b = 2.1 - (1.46)(-0.2) = 2.39$$

$$\hat{y} = 1.46x + 2.39$$

3) $r^2 = (r_{xy})^2 = \left(\frac{S_{xy}}{S_x S_y} \right)^2 = \left(\frac{5.4}{(1.92)(3.19)} \right)^2 = 0.78$

4) $\hat{y}(2) = 1.46(2) + 2.39 = 5.31$



6) $\hat{x} = cy + d$

$$c = \frac{19.5 - 5(-0.2)(2.1)}{40.7} = \frac{21.6}{40.7} = 0.53$$

$$d = -0.2 - (0.53)(2.1) = -1.31$$

$$\hat{x} = 0.53y - 1.31$$

7) $r^2 = 0.28$

8) $\hat{x}(0) = -1.31$

2. Wert - 10.000



Area of B

$$P(S) = (1.5)(50 - 72) - 2.01$$

$$P(S) = (1.5)(-22) - 2.01$$

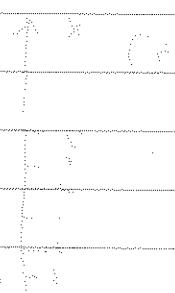
$$P(S) = -33 - 2.01$$

$$P(S) = -35.01$$

$P(S) = 5.201$

$$\begin{pmatrix} 0.002 \\ 0.002 \end{pmatrix} = \begin{pmatrix} 0.002 \\ 0.002 \end{pmatrix} = \begin{pmatrix} 0.002 \\ 0.002 \end{pmatrix}$$

$0.002 = 0.002 \cdot (1.5)(50 - 72) - 2.01$



Area of B

$$E(x) = 0.05 = (1.5)(50 - 72) - 2.01$$

$$0.05 = (1.5)(-22) - 2.01$$

$$0.05 = -33 - 2.01$$

$$0.05 = -35.01$$