

$$c) x = 28.1 \quad y = 5.7$$

$$E_2 = y - \hat{y} \quad \hat{y} = 1.26 + 0.346 \cdot 28.1 = 10.98$$

$$E_2 = 5.7 - 10.98 = -5.28$$

9.22

$x$  = % di adulti che usa contraccettivi

$y$  = fertilità

$$\bar{x} = 60 \quad s_x = 20.6$$

$$a) \hat{y} = \text{constant} + \text{contra} \cdot x \quad \leftarrow \text{riferimento all'OUTPUT}$$

$$\hat{y} = 6.6633 - 0.065x$$

$$b) x = 0 \rightarrow \hat{y} = 6.6633 - 0 = 6.6633$$

$$x = 100 \rightarrow \hat{y} = 6.6633 - 0.065 \cdot 100 = 0.01$$

$$c) r^2 = \frac{TSS - SSE}{TSS} \quad TSS = \sum (y - \bar{y})^2$$

$$= \frac{SS_{\text{reg}}}{TSS}$$

$$= 100 - \frac{100 \cdot SSE}{TSS}$$

$$r^2 = \frac{476.4 - 10138}{47644} = 0.787$$

$$r = \sqrt{0.787} = 0.887$$