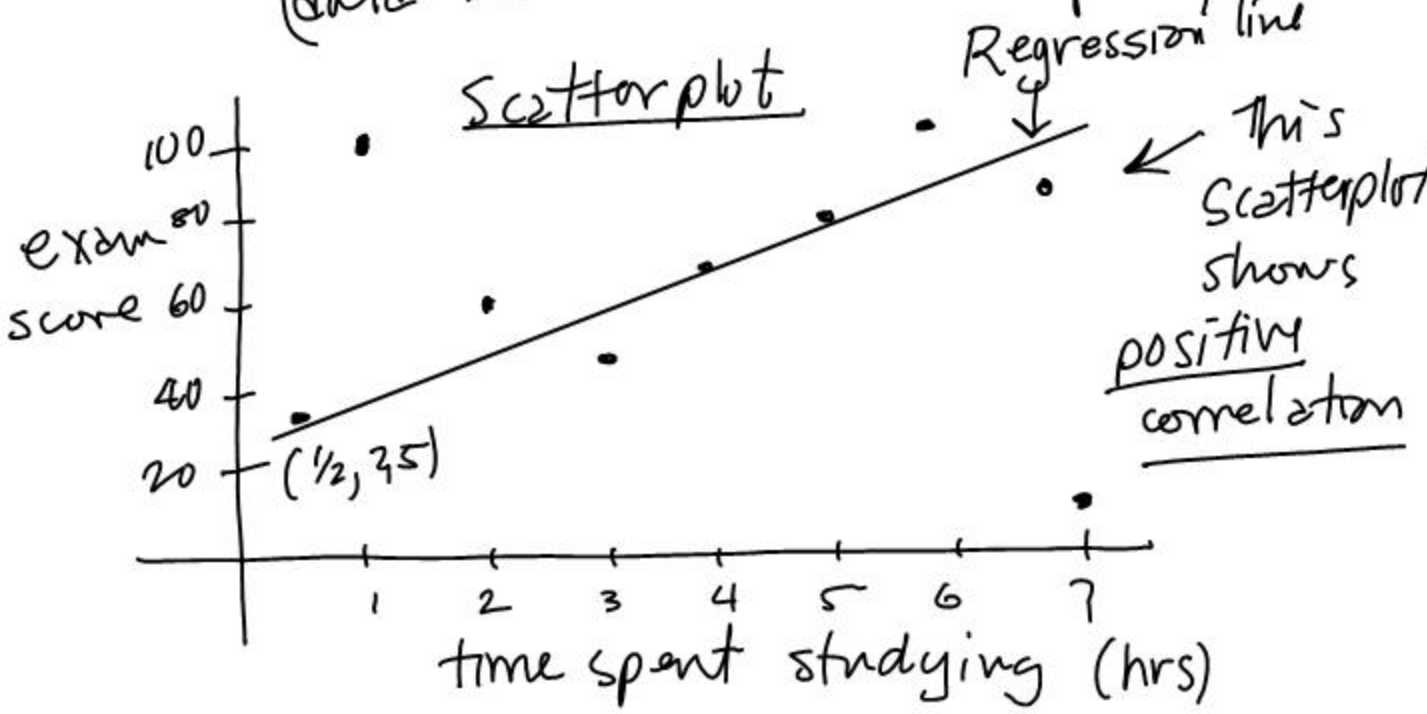
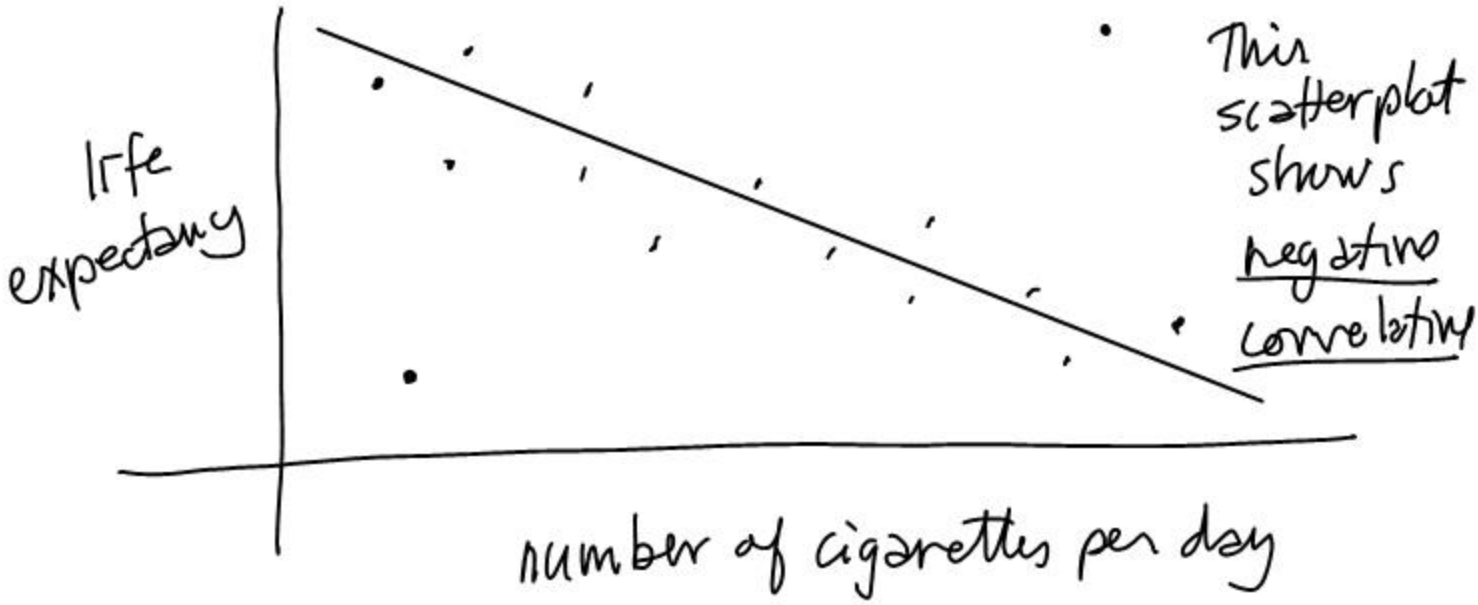
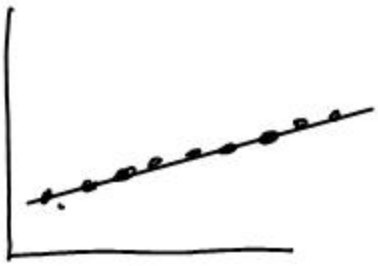
Scatterplots, Correlation, & Regression

Bivariate analysis

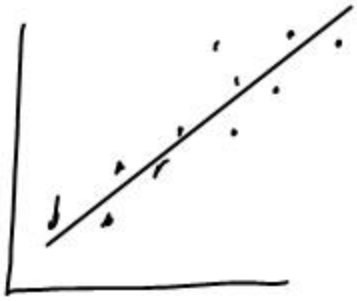
(data that comes in ordered pairs)







perfect positive correlation
$r = 1$



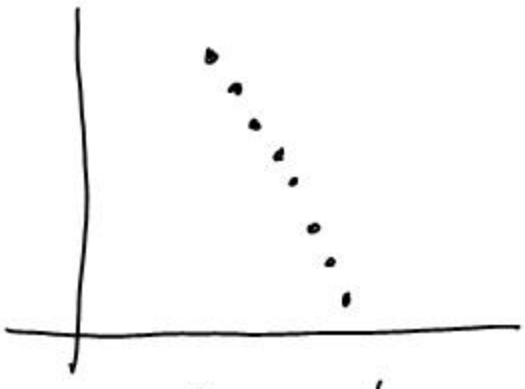
strong pos. corr.
$r = 0.85$

weak pos, correlation
$r = 0.5$

Correlation coefficient : r

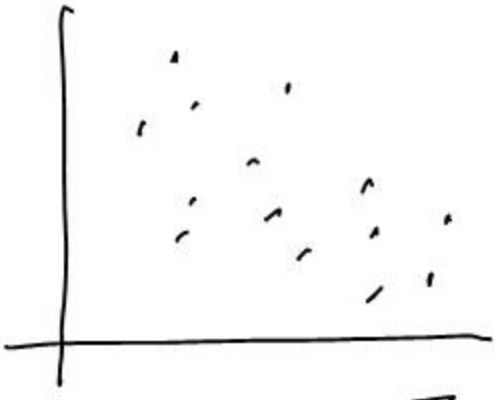
$r = 0$

$r = 0$



$r = -1$
perfect neg. corr.

$r = -0.9$



$r = -0.5$

10C #2 $\bar{x} = 220$

↑ average x-value

$\bar{y} = 75.43$

↑ average y-value

(220, 75.4) ← The mean point must lie on the regression line

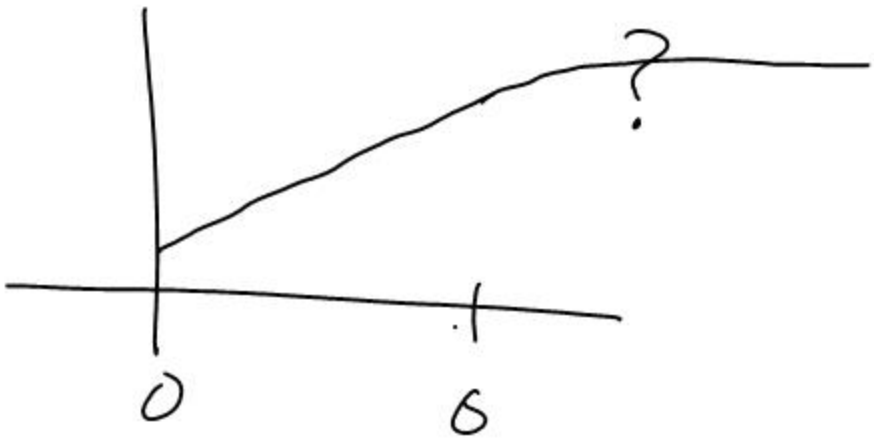
10E #1 $\hat{y} = \underline{1.84}\,x + \underline{1.99}$

(c) $\hat{y}(3.5) = \underline{8.44}$

VARS Y-VARS $Y_1(3,5) = \underline{8.44}$

Function Y1 (d) $Y_1(12)$ = NOT a valid question

An extrapolation.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