this time: regression;
next time: ANOVA

read: LN pp. L-(269) → L-(301)

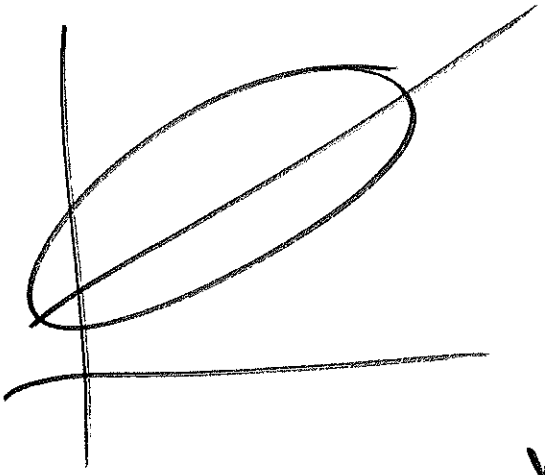
L-(216)

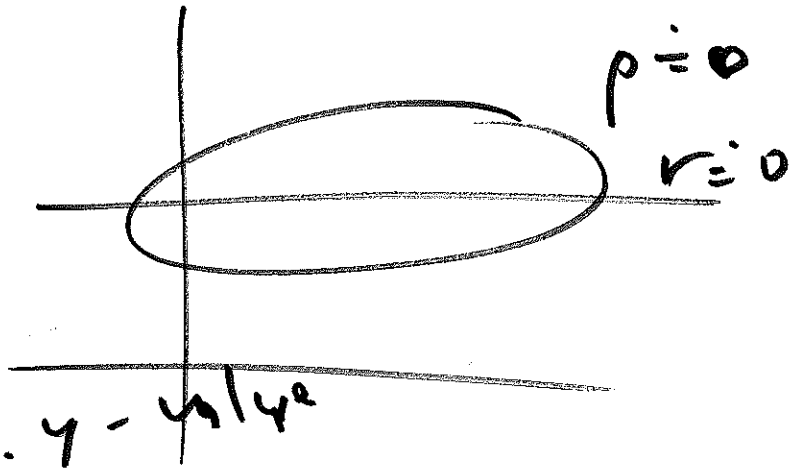
STAT 7
2 Dec 19

L-(221) ①

$r = +.87$

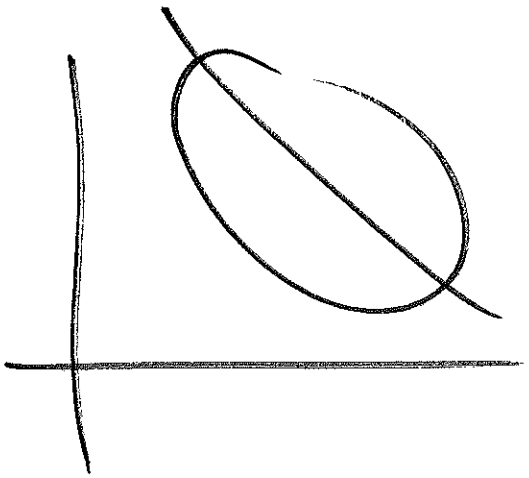
$\hat{SE}_{IID}(\hat{\beta}_1)$ : R-(25), f. (18), (19)






pred. $y - \mu_{y|x}$

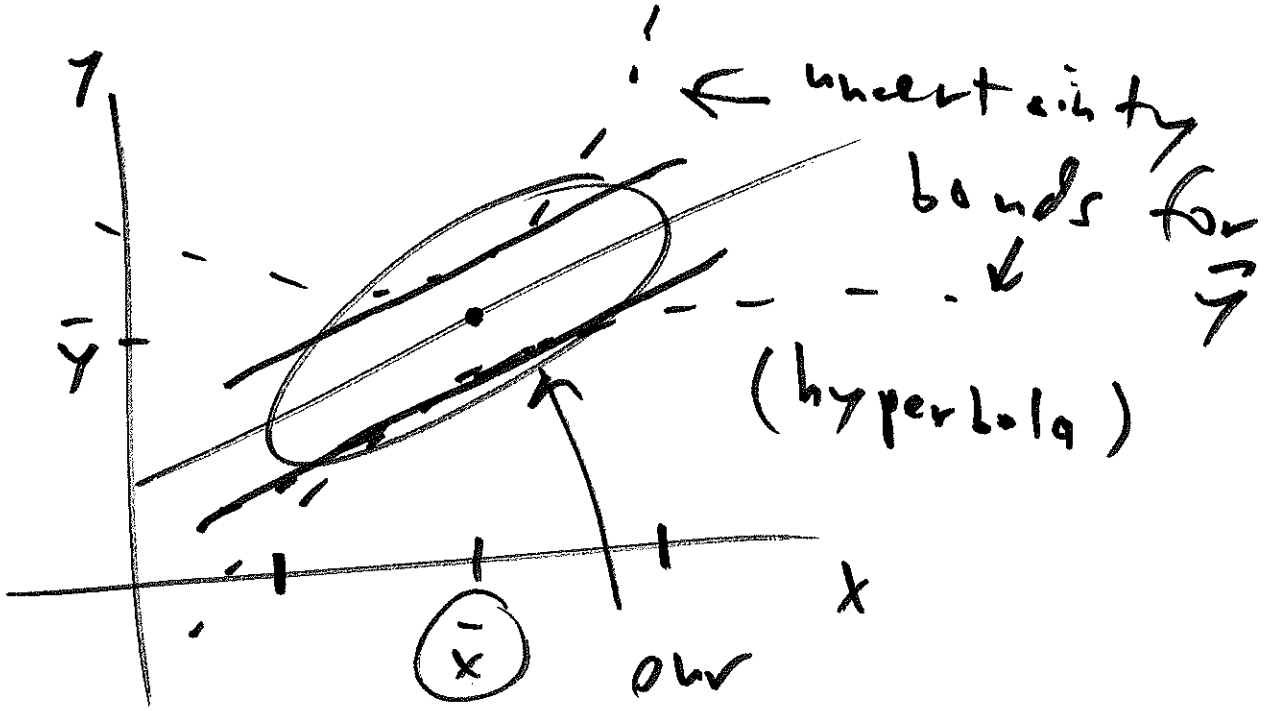
$\hat{y} = \hat{\beta}_0 + \hat{\beta} x$



$\hat{SE}(\hat{y}) \doteq s_{y|x}$

approx.

give or take for $\hat{y}$


uncertainty
bounds for
$\hat{y}$
(hyperbola)
y
$\bar{y}$
x
$\bar{x}$
our
approx.

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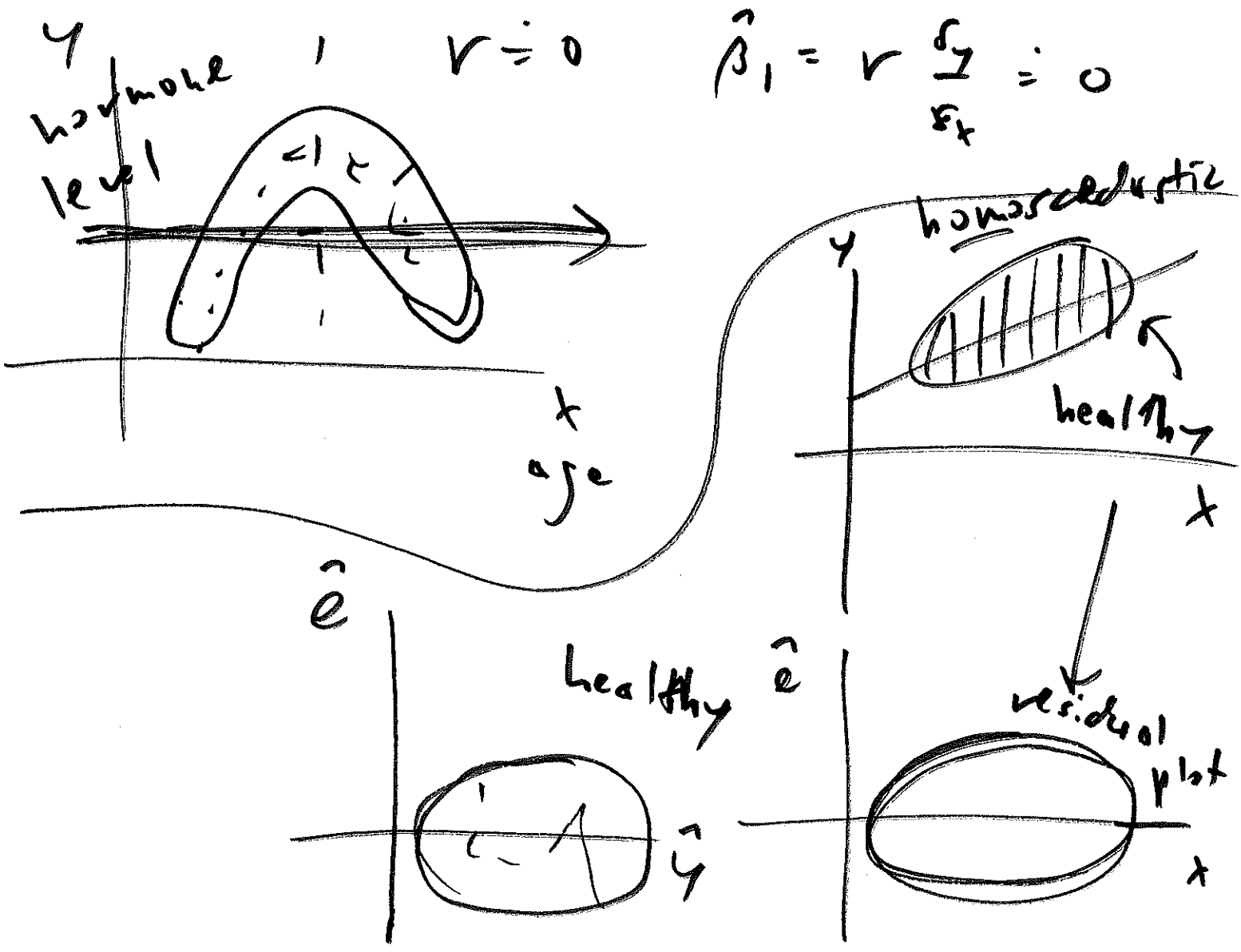
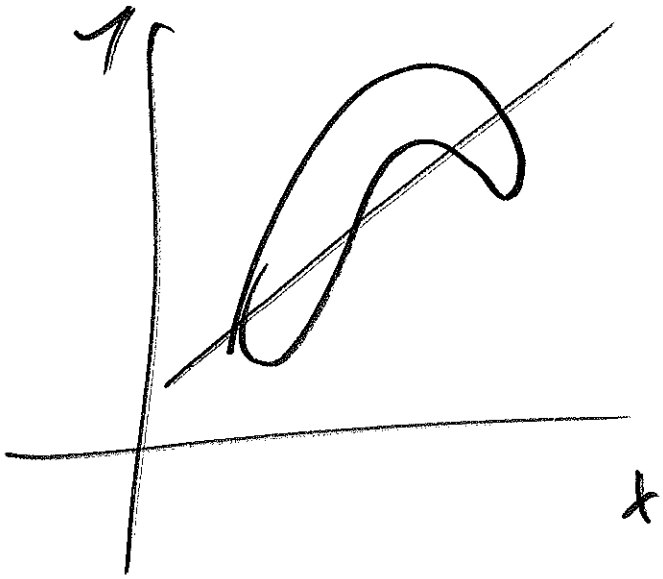
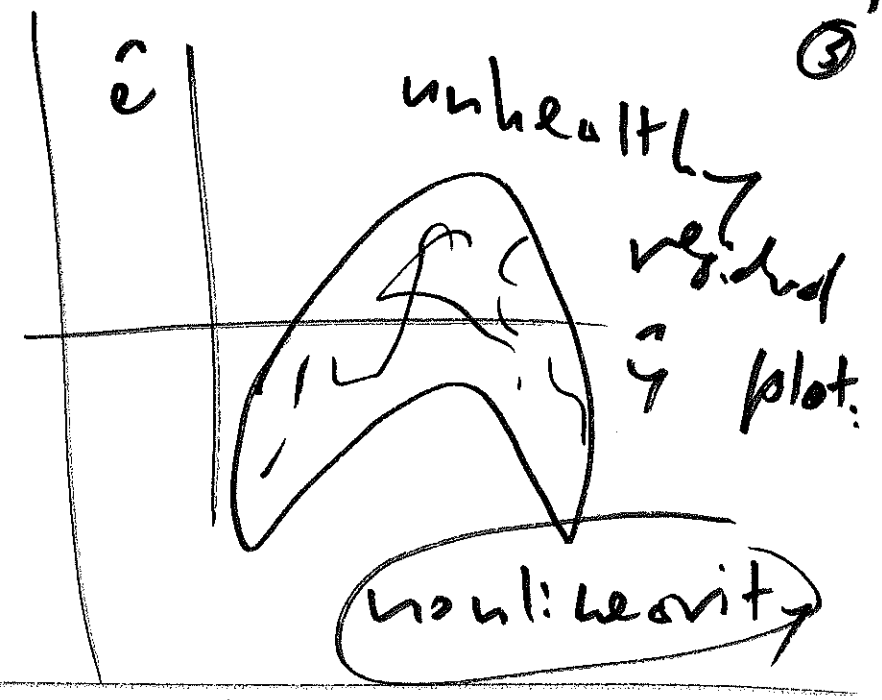
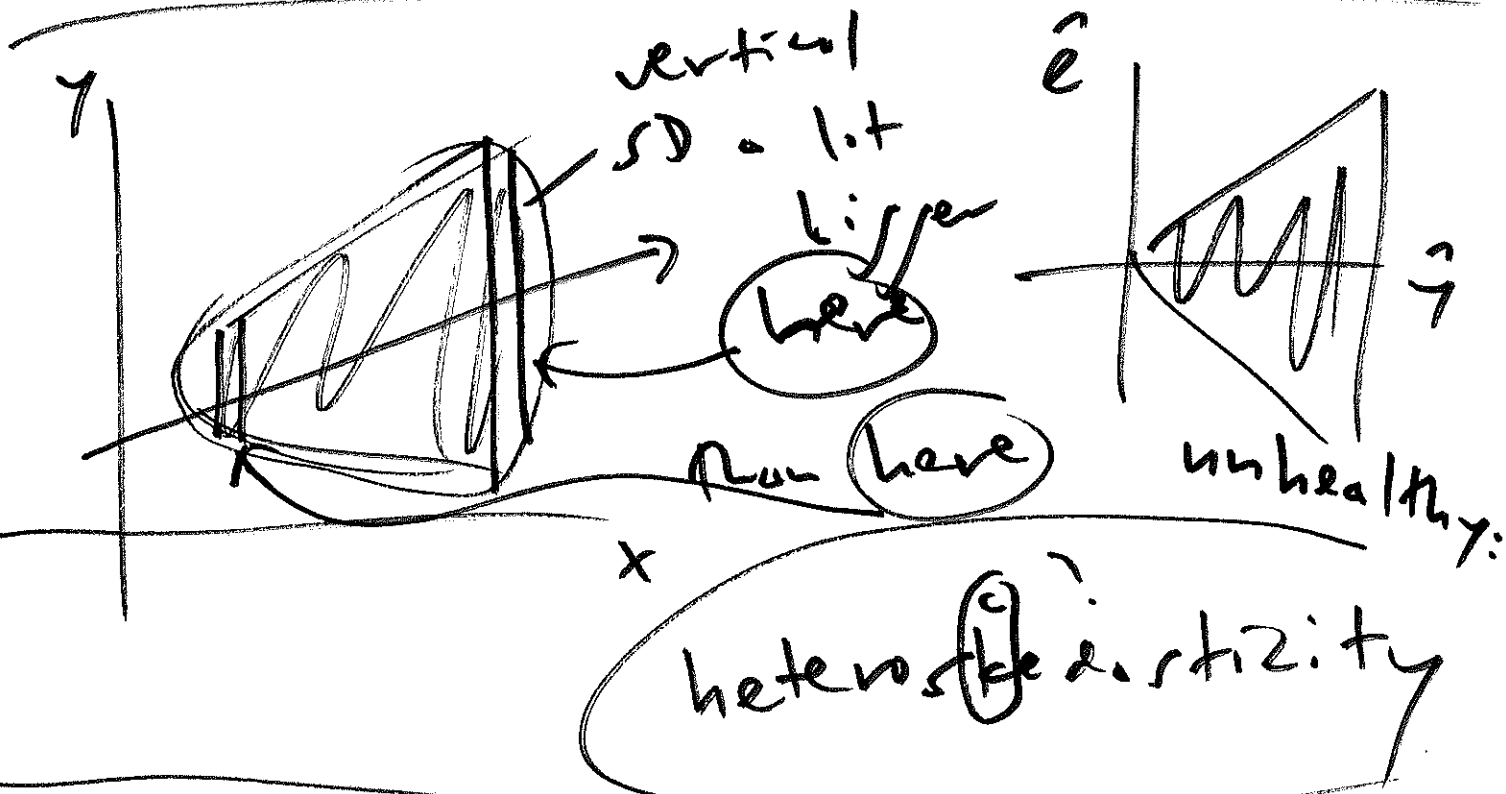

y
homoske
level
x
age
$r \doteq 0$
$\hat{\beta}_1 = r \frac{s_y}{s_x} \doteq 0$
homoscedastic
y
healthy
x
$\hat{e}$
Healthy
$\hat{e}$
$\bar{y}$
residual
plot
x




$$y_i = \beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \dots + \beta_k x_{ik} + e_i$$

(size of plant)

(Y) height

# leaves $x_1$

weight $x_2$

...