$\hat{y} = b_0 + b_1 x$

$b_0 = \bar{y} - b_1 \bar{x}$

$b_1 = r \frac{s_y}{s_x}$

$\hat{y} = 8 + 0.4x$

$\bar{x} = 5 \quad \bar{y} = 10$

$s_x = 2 \quad s_y = 1$

$r = 0.8$

$b_1 = 0.8 \frac{1}{2} = 0.4$

$b_0 = 10 - (0.4)(5)$

$b_0 = 8$

Oct 9-11:32 AM

r = correlation coefficient -0.85

LINEAR

Strength + direction

R^2 = % of variation in y (predicted response) that can be explained by the linear relationship with x. (explanatory)

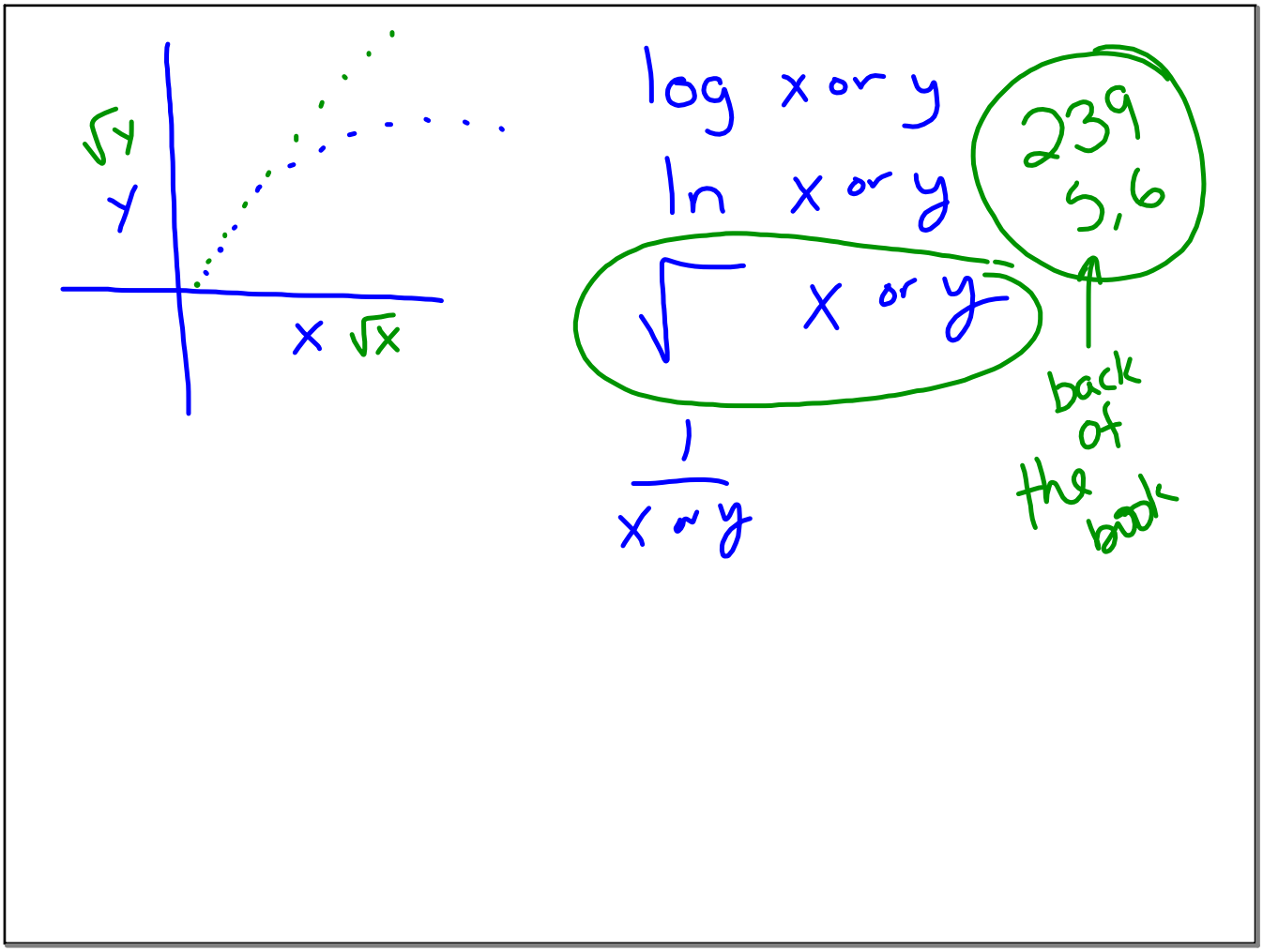
$\log \hat{y} = 2.5 - 6x \quad x = 5$

$\log \hat{y} = 2.5 - 6(5)$

$\log \hat{y} = -30$

$10^{\log \hat{y}} = 10^{-30}$

$\hat{y} =$



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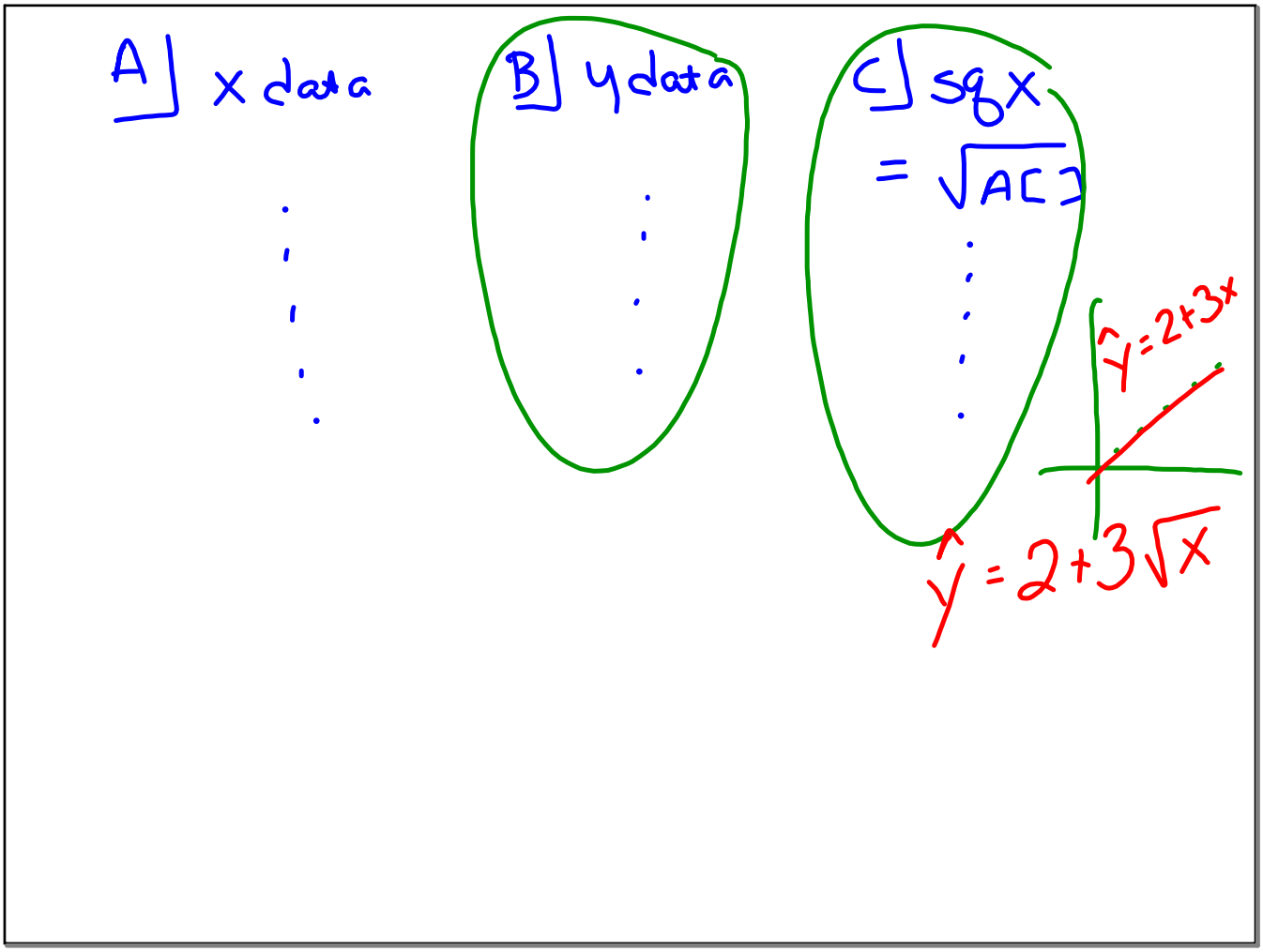

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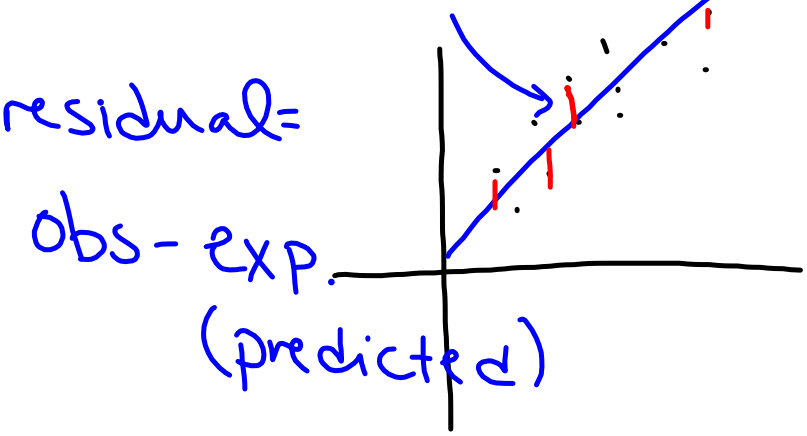
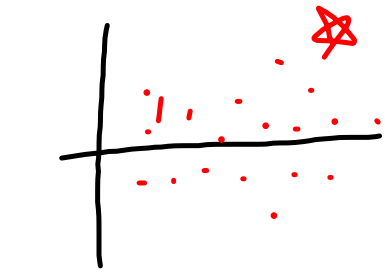
observed is higher than expected

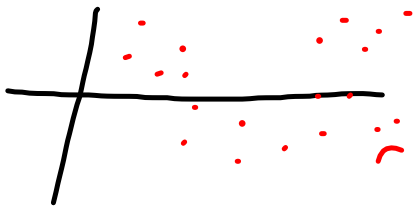
residual=

obs - exp.

(predicted)







r = correlation coefficient

no units

-1 to 1

Linear

↳ Quantitative Data

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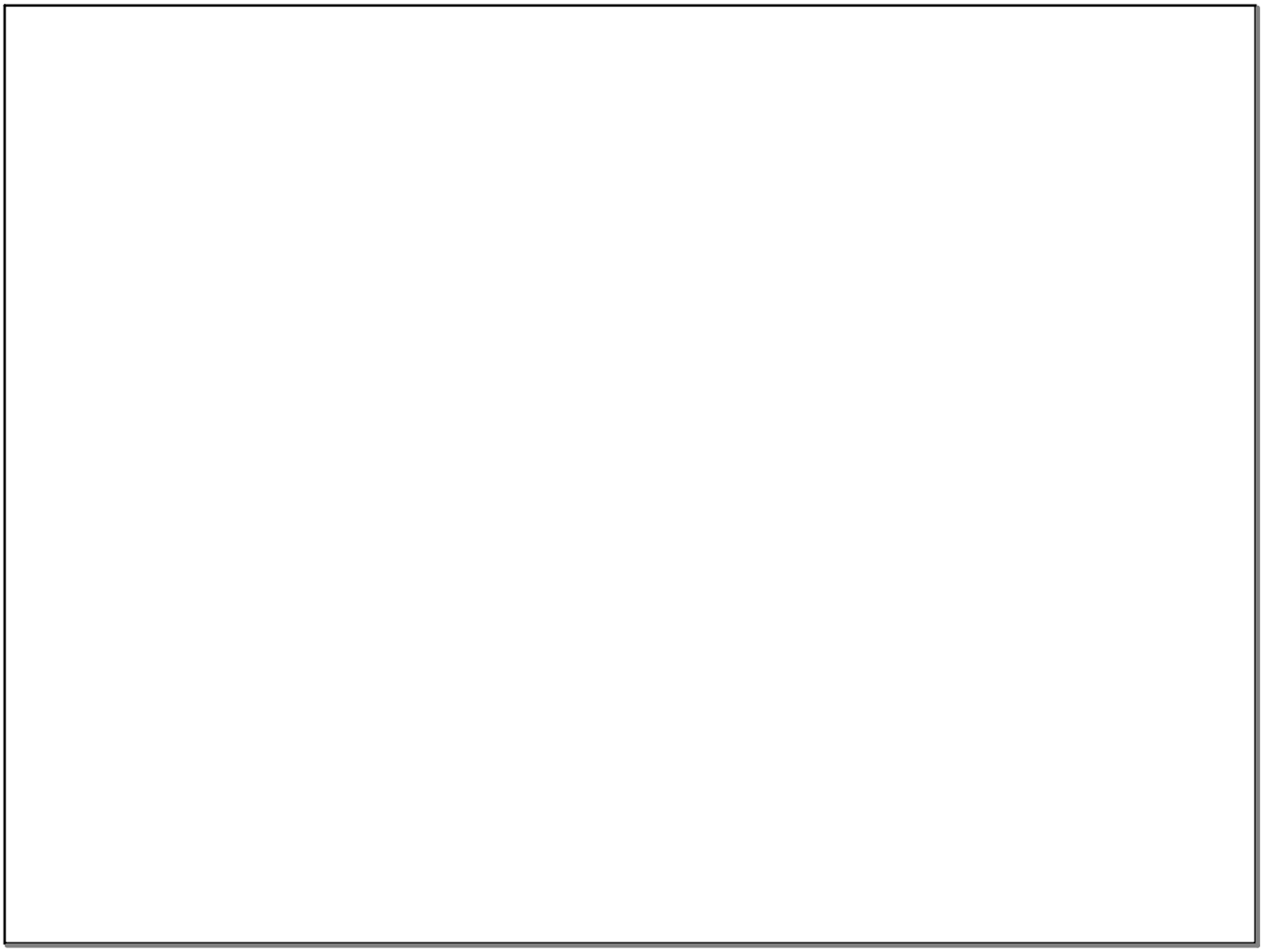

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