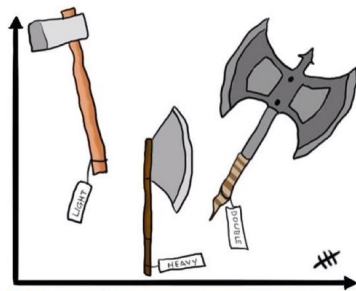


Always label your axes



# AP Statistics

## Unit 3: Linear Regression

### Chapters 7-10

Go Over Tests Tootsie Pop Challenge		19 7.2 Describing Bivariate Data HW: p 164 (3-6)	20	21 7.3 Correlation HW: p165 (11,12,15,16)
24 7.5 Lurking Variables HW: p167 (23-28)	25 8.1 Residuals HW: p192-3 (3,4,12,13)	26	27 8.2 Monopoly Lab HW: p 193(15-18, 27, 28,)	28 9.1 Cheerios Lab HW: p193 (20-22)
1 9.2 Finish Cheerios Lab HW: p 239 (5,6)	2 10.1 Computer Output HW: worksheet	3	4 10.2 Barbie Lab NO HOMEWORK POWDER PUFF	5 10.3 Practice Problems NO Homework
8 10.4 FR Review HW: p 250 (29-31)	9 10.5 MC Review	10	11 10.6 Unit 3 Test	12

### Phrases to know

$r$ —"There is a positive/negative, weak/moderate/strong linear association between explanatory variable and response variable."

$R^2$ —"\_\_ percent of the variation in the response variable can be explained by the approximate linear relationship with the explanatory variable."

**Slope**—"For every 1 x-unit increase in the explanatory variable, our model predicts an average increase/decrease of y unit in the response variable."

**y-intercept**—"At an explanatory variable of zero x-units, our model predicts a response variable of y-units." (does this make any sense?)

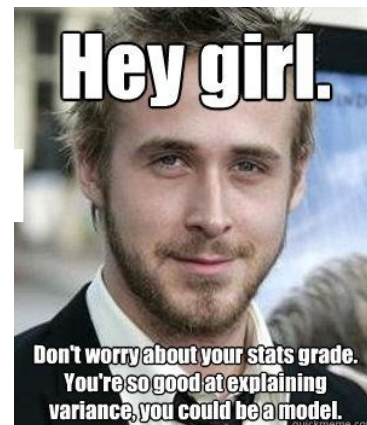
### HELPFUL EQUATIONS

$$r = \frac{\sum z_x z_y}{n-1}$$

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

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

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



A video—basics of linear regression.



<http://bit.ly/1pX7amG>

\*\* his whole series seems pretty helpful\*\*

A video—computer output,  $R^2$  & others.



<http://bit.ly/2ao29CS>

Using your TI-84 for linear regression



<http://bit.ly/2acaWaG>