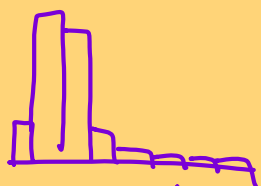


STATISTICS REVIEW



Median/ $\pm$ IQR



Mean/St. Dev.

Calculations - 9-End

9) Median - Data in order!

500 pieces of data $\frac{500}{2} = 250^{\text{th}} + 251^{\text{st}}$

$\{7, 9, 16, 20\}$

Find st. dev. 1) Mean = $\frac{52}{4} = 13$

2) Data-Mean

$$(-6)^2 + (-4)^2 + (3)^2 + (7)^2 = 36 + 16 + 9 + 49 = \frac{110}{4} = 27.5$$

10) If 37 number in stem & leaf = 5.0

$$\text{Med} = \frac{37}{2} = 18.5 = 19^{\text{th}} \quad \text{Mod} = 122$$

$$\text{Quartiles} = \frac{18}{2} = 9^{\text{th}} + 10^{\text{th}} \quad Q_1 = 110$$

$$Q_3 = 144$$

$$\text{Outliers: } IQR = Q_3 - Q_1 = 144 - 110 = 34$$

$$1) IQR \times 1.5$$

$$34 \times 1.5 = 51$$

$$2) \text{Upper boundary} = Q_3 + \#$$

$$= 144 + 51$$

$$= 191$$

$$3) \text{Lower boundary} = Q_1 - \#$$

$$= 110 - 51$$

$$= 59$$

Normal Distrib

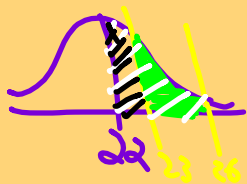
#11-12 By hand using the table.

Mean wt. of a turkey

$$\mu = 22 \text{ lbs.}$$

$$\sigma = 2.8 \text{ lb.}$$

Grocery has 200 turkeys?

How many weigh between
23 lb + 26 lb?

$$Z = \frac{x - \mu}{\sigma}$$

$$Z = \frac{23 - 22}{2.8}$$

Z =

$$Z = \frac{26 - 22}{2.8}$$

Z =

#13 Calculator

Find % Normalcdf

Find Raw Score Inv Normal

Normal Distrib

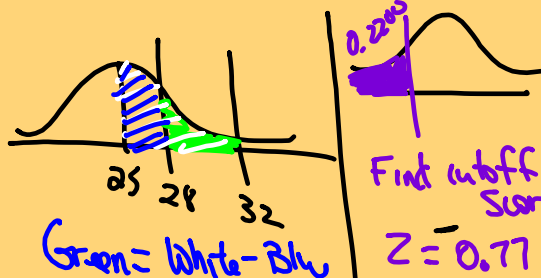
11-13

$$Z = \frac{\bar{x} - \mu}{\sigma}$$

11-12 = Use table

13 = Calculator

Normalcdf, InvNorm
 ↑ Need % ↑ Find z-score

Confidence Interval

14-17

$$\sigma_{\bar{x}} = \frac{\sigma}{\sqrt{n}}$$

$$E = Z \cdot \sigma_{\bar{x}}$$

$$\bar{x} \pm E$$

$$\bar{x} = 5.8 \text{ oz.}$$

$$\sigma = 0.1 \text{ oz.}$$

Sampled 36 meals

Find a 90% conf. interval for mean wt. of all lunches

$$1) \sigma_{\bar{x}} = \frac{0.1}{\sqrt{36}} = 0.0167$$

$$2) E = Z \cdot \sigma_{\bar{x}}$$

$$E = 1.65 \cdot 0.0167$$

$$E = 0.028$$

$$3) \bar{x} \pm E = 5.8 \pm 0.028 = 5.772 - 5.828$$

% confidence What is probability that mean weight of lunch is between 5.6 oz + 5.9 oz.



Need z-scores

$$E = Z \cdot \sigma_{\bar{x}}$$

$$0.2 = Z \cdot 0.0167$$

$$11.98 = Z$$

$$0.1 = Z \cdot 0.0167$$

$$11.98 = Z$$