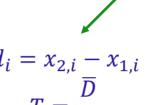
## Sample mean vs Population Mean Known $\sigma$ ?

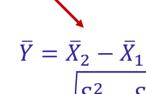
1 sample

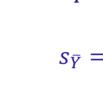
# Paired data?

2 sample

Two sample means against each other







$$\bar{r} = \sqrt{\frac{S_1^2}{n_1}}$$

$$\bar{Y}$$

$$\frac{S_2^2}{1 + \frac{S_2^2}{n_2}}$$

$$\frac{\overline{Y}}{S_{\overline{Y}}}$$

$$= \sqrt{\frac{s_1}{n_1} + \frac{s_2}{n_2}}$$

$$T = \frac{\bar{Y}}{s_{\bar{Y}}}$$
Similar  $\sigma$ ?

$$= \sqrt{\frac{S_1^2}{n_1}} + \sqrt{\frac{S_1^2$$

$$d_{i} = x_{2,i} - x_{1,i}$$

$$T = \frac{\overline{D}}{s_{\overline{D}}}$$

$$v = n - 1$$

$$\overline{Y} = \overline{X}_{2} - \overline{Y}$$

$$s_{\overline{Y}} = \sqrt{\frac{S_{1}^{2}}{n_{1}}} + \frac{\overline{Y}_{2}}{\overline{Y}_{2}}$$

 $\nu = n_1 + n_2 - 2$ 

$$v = n - 1$$

$$T =$$

$$\sqrt{n}$$

$$\frac{-\mu}{\sqrt{n}}$$
 Large  $n$ ?

$$\bar{X} - \mu$$
 Large  $n$ ?