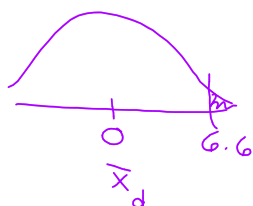


$$\bar{X} = 6.6 \quad S_x = 5.27 \quad n = 10 \quad df = 9$$

$\mu_d =$ mean diff. in active ing. (name-gen.)

$H_0: \mu_d = 0$ (no diff.)

$H_a: \mu_d \neq 0$ (is a diff.)



$$t = \frac{6.6 - 0}{\frac{5.27}{\sqrt{10}}} = 3.96 \quad \Pr(t > 3.96) = \underline{\underline{.002-.005}}$$

$2(.001-.0025)$

p-value .0033 (calc)

$n \geq 30 \times$
 $\Rightarrow n = 10 < 30$
 or pop. is normal



graph of sample diff.
 is not too skewed/no outliers.

Not unreasonable to assume
 pop. diff. are normal.

With a p-value of .0033,
 this is sign. at .005 level
 Reject H_0 .
 There is evid. that the
 mean amt. of active ing.
 is diff. between name
 and generic.

took a random sample
 of pharmacies

2-sample t-test

walkers	no walker
$\bar{X}_w = 113$	$\bar{X}_n = 123$
$S_w = 12$	$S_n = 15$
$n_w = 54$	$n_n = 55$

μ_w = mean mental score for using walker.
 μ_n = " " " no walker

$H_0: \mu_w = \mu_n$ (no diff.)

$H_a: \mu_w \neq \mu_n$ (1s diff.)

$\cdot 54 \geq 30 \quad 55 \geq 30$

- \cdot 2 independent SRS:
 babies w/walkers
 babies w/o walkers

$$t = \frac{113 - 123}{\sqrt{\frac{12^2}{54} + \frac{15^2}{55}}} = -3.85$$

$df = 102.8$
 $P\text{-value} \approx .0002$
 $2 \cdot Pr(t > 3.85) < .001$
 $df = 53$ (use 50 chart)

$$.247 \pm \text{~~~~~}$$
$$(.178, .314)$$

$$(.247 - .098) \pm 1.96$$

$$.149 \pm .0818$$

$$(.067, .231)$$