

Statistics CH 8 Review (no proportions)

From pages 522-523

- R8.2b $t = 2.665$
- R8.3 a) $\bar{x} = 450m$, $S_x = 62.527m$. b) incor. c) No
- R8.5 a) $M = \text{mean IQ for } 1000 \text{ st.}$ b) $n > 30 \rightarrow \text{normal!}$ c) $(111.79, 118.17)$
- R8.8 $(223.969, 224.035)$
- R8.9 $n = 35$
- R8.10 a) Inc. b) Dec by factor of 2

From pages 524-525

- T8.2 D
- T8.3 C
- T8.5 B
- T8.7 D
- T8.8 D
- T8.10 D
- T8.12 $(5.46, 6.956)$
- T8.13 $(4794.4, 5105.6)$ $\bar{x} = 4950$
 $S_x = 268.5$

9.12 a) Mon vs. Wed
may impact results

b) $H_0: \mu_d = 0$
 $H_a: \mu_d < 0$
 $\mu_d = \text{true diff in \# words recalled}$

$Df = 9$ $\bar{x} = -1$ $S_x = .816$
 $t = -3.875$ $p\text{-val} = .0019$
reject null

9.13 a) $n > 30$
b) $H_0: \mu = 158$ $H_a: \mu \neq 158$
conf int: $(159.32, 170.68)$
158 is not inside, reject null

Statistics CH 9 Review (no proportions)

From pages 594-596

- R9.1a $H_0: \mu = 64.2$ $H_a: \mu \neq 64.2$
- R9.2 $H_0: \mu = 0$ $H_a: \mu_d > 0$ b) Rand. SRS indep c) if null is true chance of \bar{x} -bar is .047
- R9.3 $H_0: \mu = 300$ $H_a: \mu < 300$ b) I: comp correct. find them corr. II: comp incor. find them corr.
- R9.6 $H_0: \mu_d = 0$ $H_a: \mu_d < 0$ c) II more serious
- R9.7 } Below actual mean diff in
- R9.8 } BP $\bar{x} = -6$ $S_x = 19.8$ d) if mean is 294, 7170 we reject null
- R9.9 } $t = -2.143$ $p\text{-val} = .0186$ e) Inc. sample size, ~~dec. α~~ inc. α
reject H_0

From pages 597-599

- T9.2 B
- T9.4 E
- T9.6 C
- T9.7 E
- T9.9 A
- T9.10 C
- T9.12 } In
- T9.13 } Box

- 9.7) $H_0: \mu = 22$ $H_a: \mu > 22$ $\mu = \text{true mean amount of time to read}$
 $\bar{x} = 26.496$ $Df = 23$
 $S_x = 4.728$ $t = 4.659$ $p\text{-val} = 0$
reject null
- 9.8) $H_0: \mu = 105$ $H_a: \mu \neq 105$ $(99.61, 110.03)$ 105 is in
 $\mu = \text{actual mean radon}$ \therefore fail to reject
a) random assignment of treatment
- 9.9) $\mu_d = 0$ $\mu_d < 0$
 $\mu_d = \text{true mean diff in yield}$ $\bar{x} = -33.7$ $S_x = 66.2$
 $df = 10$ $t = -1.688$ $p\text{-val} = .0612$
Fail to reject

Statistics CH 8 Review (all proportions)

From pages 522-523

R8.1

R8.2a $z = 1.88$

R8.4

$p = \text{prop. adults who say FB}$

R8.6

$n = 16590$

R8.7

$(.168, .220)$

b) Sample Random, Normal: $p \neq .10$
 Edep: less than 10% c) $(.34, .40)$

From pages 524-525

T8.1 A

T8.4 D

T8.6 A

T8.9 E

T8.11 $(.490, .696)$

Statistics CH 9 Review (all proportions)

From pages 594-596

R9.1b $H_0: p = .75$ $H_a: p < .75$

R9.4 $H_0: p = .05$ $H_a: p < .05$ $p = \text{true prop. whose vacc. \& get flu}$

R9.5 ~~$p = .043$~~ $p = .043, z = -1.02, p\text{-val} = .1539$ fail to reject

From pages 597-599

T9.1 B

T9.3 C

T9.5 B

T9.8 D

T9.11

$H_0: p = .2$

$H_a: p > .2$

$p = \text{true prop. willing to pay \$100}$

$\hat{p} = .267, z = 1.3, p\text{-val} = .0968$ Fail to reject

b) I: concluding more would pay when they will not

II: concluding under 20% would pay when more than 20% will

c) inc. α