

STA 205 STATCRUNCH EXAMPLES FOR THE t-DISTRIBUTION

CALCULATING A T-INTERVAL

The data for this example are from Exercise 3, page 303 of the text.

To obtain the desired 95% confidence interval, use

```
Stat ► T Statistics ► One Sample ► with data
      Select Columns: Surgeries
      Next ►  Confidence Interval
            Level: 0.95
            Calculate
```

95% confidence interval results:

μ : mean of Variable

Variable	Sample Mean	Std. Err.	DF	L. Limit	U. Limit
Surgeries	7.690909	0.61346984	54	6.460976	8.920842

CALCULATIONS FOR A T-TEST

The data for this example are from Exercise 12, page 323 of the text.

To obtain the calculated value of the test statistic, and the corresponding p-value for the test of hypothesis of interest, use

```
Stat ► T Statistics ► One Sample ► with data
      Select Columns: Yield
      Next ►  Hypothesis Test
            Null: Mean = 68.2
            Alternative:  ≠
            Calculate
```

Hypothesis test results:

μ : mean of Variable

H_0 : $\mu = 68.2$

H_A : $\mu \neq 68.2$

Variable	Sample Mean	Std. Err.	DF	T-Stat	P-value
Yield	69.10909	0.3683301	21	2.4681418	0.0223