

Stat Test Operations: ZInterval...


Use the Z-interval operation to construct a confidence interval for an unknown population mean μ , when the population standard deviation σ is known (or assumed).

Keystrokes

Screen


Press **STAT**  to view the Stat Test menu.

```
EDIT CALC TESTS
1:Z-Test...
2:T-Test...
3:2-SampZTest...
4:2-SampTTest...
5:1-PropZTest...
6:2-PropZTest...
7↓ZInterval...
```

Press either **7** or  until **ZInterval** is highlighted then **ENTER** to enter the ZInterval editor.

```
ZInterval
Inpt:Data STATES
σ: .2
x̄: 7.8
n: 10
C-Level: .95
Calculate
```

Note: statistics from previous calculations show automatically in the ZInterval editor; your screen may appear different from this.

The **ZInterval** editor requires either a list of data (see handout for Stat Edit: entering data) or directly entered statistics. For this example, we will enter statistics directly. Press **ENTER** with the cursor over **Stats** and  to enter statistics.

```
ZInterval
Inpt:Data STATES
σ: .2
x̄: 7.8
n: 10
C-Level: .95
Calculate
```

Use $\sigma = .2$, $\bar{x} = 7.8$, $n = 10$, and **C-Level = .99**. Press **ENTER** after each entry to move to the next entry.

```
ZInterval
Inpt:Data STATES
σ: .2
x̄: 7.8
n: 10
C-Level: .99
█
```

Press **ENTER** to calculate. Therefore, the 99% confidence interval for the unknown population μ is (7.6371, 7.9629).

```
ZInterval
(7.6371, 7.9629)
x̄: 7.8
n: 10
```

More questions? Contact the **Metropolitan State University Math Center** at 651-793-1460, 651-793-1463 (Fax) or math.center@metrostate.edu.

Persons with a disability who need reasonable accommodations may call Disability Services at 651-793-1540 or 651-772-7687 (TTY).