

# EXCEL QUICKGUIDE 10

## The VAR.P Function

### What the VAR.P Function Does

The VAR.P function computes the variance for an entire population.

### The Data Set

The data set used in this example is titled VAR.P, and the question is, “What is the variance for the scores on The Extroversion Scale (TES) for the entire population of 100 high school seniors?”

<i>Variable</i>	<i>Description</i>
TES	Score on The Extroversion Scale, ranging from 1 to 100

### Using the VAR.P Function

1. Click the cell where you want the VAR.P function to be placed. (In the data set, the cell is B23.)
2. Select the Formulas tab and click the Insert Function button ( $f_x$ ), locate and double-click the VAR.P function, and you will see the Function Arguments dialog box, as shown in Figure 10.1.
3. Define the input range by clicking the RefEdit button and selecting the data you want to use in the analysis (in this example, Cells A2 through E21), and clicking the RefEdit button once again.
4. Click OK. The VAR.P function returns its value in Cell B23, as you see in Figure 10.2. The variance is 684.12. Note that you can see the syntax for the function in the formula bar at the top of the worksheet.

Related Functions: STDEV.S, STDEV.P, VAR.S

Figure 10.1 The VAR.P Function Arguments Dialog Box

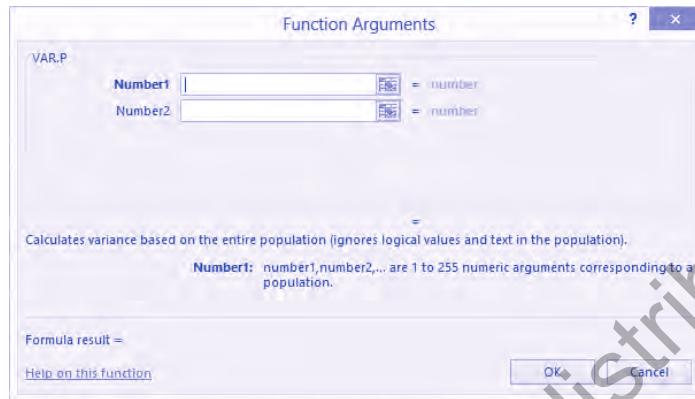


Figure 10.2 The VAR.P Function Returning the Variance for the Population

	A	B	C	D	E
10	82	29	92	99	90
11	58	6	57	18	62
12	75	74	32	23	93
13	69	65	83	29	97
14	78	5	35	86	39
15	37	49	24	64	99
16	69	84	33	71	68
17	77	62	7	95	47
18	89	71	58	39	59
19	65	95	54	11	57
20	76	18	97	47	58
21	90	42	52	49	29
22					
23	VAR.P	684.12			

## Check Your Understanding

To check your understanding of the VAR.P function, do the following two problems and check your answers in Appendix A.

- QS10a. Compute the variance for the population of annual income for all breadwinners in a county of 25 cities. Use Data Set 10a.
- QS10b. Compute the variance for the population of body mass index values for all 100 students in an entire elementary school. Use Data Set 10b.