

Finding Confidence Intervals for the Mean Using Excel

Example #21(a) p.375 The sample size is 263, the sample mean is 5.53, the sample standard deviation is 0.92 and the confidence is 95%.

Open an Excel spreadsheet. Enter the percent confidence, the sample mean, the sample standard deviation and the sample size in cells B1 through B4.

Enter the formulas shown in cells C6 through C8 in the neighboring cells, B6 through B8. When you have finished typing in the formulas, you will only see the values shown below that are calculated by Excel in cells B6 through B8.

Enter the formula shown in cell D3 in D2. Enter the formula shown in cell F3 in F2. When you have finished typing in the formulas, you will only see the values shown below that are calculated by Excel in cells D2 and F2.

	A	B	C	D	E	F	G
1	Confidence =	95					
2	Sample Mean =	5.53	Conf. Int. = (5.4183	,	5.6417)
3	Sample Std. Dev. =	0.92		=B2-B8*B7		=B2+B8*B7	
4	Sample Size =	263					
5							
6	Significance =	0.05	=(100-B1)/100				
7	Standard Error =	0.05673	=B3/SQRT(B4)				
8	Critical Value =	1.96906	=TINV(B6, B4-1)				
9							

The confidence interval for the population mean is then given in cells C2, D2, E2, F2 and G2. In this case, the confidence interval would be (5.4183, 5.6417).