

Finding Confidence Intervals for the Proportion Using Excel

Example #19(b) p.387 The sample size is 238, the number of successes is 102 and the confidence is 95%.

Open an Excel spreadsheet. Enter the percent confidence, the number of successes and the sample size in cells B1 through B3.

Enter the formulas shown in cells C5 through C8 in the neighboring cells, B5 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 B5 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	Successes =	102	Conf. Int. = (0.3657	,	0.4914)
3	Sample Size =	238		=B6-B8*B7		=B6+B8*B7	
4							
5	Significance =	0.05	=(100-B1)/100				
6	Sample Proportion =	0.4286	=B2/B3				
7	Standard Error =	0.0321	=SQRT(B6*(1-B6)/B3)				
8	Critical Value =	1.9600	=NORMSINV(B5/2)				
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 (0.3657, 0.4914).