

**The University of Portland
Donald P. Shiley School of Engineering**

**EGR361
Analysis of Engineering Data**

HOMEWORK 7

Assigned: Wednesday, April 11, 2018

Due: Wednesday, April 18, 2018

Problems:

- 1) Text, 4-53 (a, c) (page 197)
- 2) Text, 4-54 (a, c) (page 197)
- 3) Text, 4-59 (b) (page 198)
- 4) Text, 4-62* (b, c) (page 198); Assume $\alpha=0.05$
- 5) Text, 4-65 (a) (page 199)
- 6) Text, 4-74 (page 214)
- 7) Text, 4-79 (page 215)
- 8) Text, 4-80 (a, b, c) (page 215)
- 9) a) A poll of 1068 registered voters in Oregon yielded that 513 favor Proposition EGR361. At the 5% significance level, test the claim that at least half of the voters favor the proposition. What is the P-value?
b) Construct a 95% two-sided confidence interval (CI) for p (the proportion of all voters who favor Proposition EGR361).
c) Calculate the number of voters required to be polled in order to be at least 95% confident that the error in estimating p (the proportion of all voters who favor Proposition EGR361) is less than 1.5%.

*Optional

Resources for further reading:

<https://www.youtube.com/watch?v=T9nI6vhTU1Y>

<https://www.youtube.com/watch?v=Akci0nJmE2M>

<https://www.youtube.com/watch?v=vw2IPZ2aD-c>

<https://www.youtube.com/watch?v=M7fUzmSbXWI>