Due date: Nov 20, Friday. Turn in the homework on papers in class. The total is 5 points.

1. According to the Gallup poll linked here [http://www.gallup.com/poll/165392/perceived-need-third-party-reaches-new-high.aspx](http://www.gallup.com/poll/165392/perceived-need-third-party-reaches-new-high.aspx), 60% of Americans feel that a third party is needed in the politics.

   a) What is the 95% margin of error? (We treat 95% as the probability within two sigmas)
   b) What is the 95% confidence interval?
   c) What is the standard deviation?
   d) What is the 90% margin of error?
   e) What is the 90% confidence interval?

(Hint: Pay attention to the Survey Methods, you will find the information you need.)