1) Use the given data to construct a confidence interval of the requested level. 1) _____
$x = 80$, $n = 198$, confidence level 99%
A) $0.323 < p < 0.485$ B) $0.369 < p < 0.439$
C) $0.314 < p < 0.494$ D) $0.173 < p < 0.635$

2) In a survey of 298 registered voters, 150 of them wished to see Mayor Waffleskate lose her next election. Construct a 90% confidence interval for the proportion of registered voter who want to see Mayor Waffleskate defeated. 2) _____
A) $0.466 < p < 0.541$ B) $0.474 < p < 0.532$
C) $0.456 < p < 0.551$ D) $0.425 < p < 0.582$

3) A survey of 800 women shoppers found that 17% of them shop on impulse. What is the 98% confidence interval for the true proportion of women shoppers who shop on impulse? 3) _____
A) $0.139 < p < 0.201$ B) $0.167 < p < 0.173$
C) $0.144 < p < 0.196$ D) $0.136 < p < 0.204$

4) A random sample of 100 voters found that 46% were going to vote for a certain candidate. Find the 90% confidence interval for the population proportion of voters who will vote for that candidate. 4) _____
A) $39.6\% < p < 52.4\%$ B) $38.7\% < p < 53.3\%$
C) $37.8\% < p < 54.2\%$ D) $41.9\% < p < 50.1\%$

5) It was found that in a sample of 90 teenage boys, 70% of them have received speeding tickets. What is the 90% confidence interval of the true proportion of teenage boys who have received speeding tickets? 5) _____
A) $0.620 < p < 0.780$ B) $0.615 < p < 0.805$
C) $0.584 < p < 0.830$ D) $0.591 < p < 0.812$

6) A report states that 40% of home owners have a vegetable garden. How large a sample is needed to estimate the true proportion of home owners who have vegetable gardens to within 6 percentage points with 96% confidence? 6) _____
A) 281 B) 141 C) 83 D) 205

7) John Davis, a manager of a supermarket, wants to estimate the proportion of customers who use food stamps at his store. He has no initial estimate of what the sample proportion will be. How large a sample is required to estimate the true proportion to within 3 percentage points with 98% confidence? 7) _____
A) 1,509 B) 1,067 C) 756 D) 1,849

Answer Key
Testname: PRACTICE21

1) C
2) C
3) A
4) C
5) A
6) A
7) A