

Extra Credit Assignment

Name: _____

Math 1040-1

Due Friday, July 27, by 12:10 p.m.

Directions: Show all work for full credit. Clearly indicate all answers. Simplify all mathematical expressions completely. Give all approximate answers to three decimal places. Each question is worth 3 points. This assignment is worth a maximum of 15 points, which will be added to your highest midterm exam score.

1. Case studies showed that out of 10,351 convicts who escaped from U.S. prisons, only 7867 were recaptured. Find a 98% confidence interval for the proportion of escaped convicts who will eventually be recaptured and interpret your answer.

2. In the third week of July, a random sample of 40 farming regions gave a sample of mean $\bar{x} = \$8.12$ per 100 pounds of watermelon. Assume that σ is known to be \$1.97 per 100 pounds. Find a 92% confidence interval for the population mean price (per 100 pounds) and interpret your answer.

