

Name: _____

Math 1030 Quiz #5 (August 1st, 2011)

1. Most IQ tests are set up to have an average of 100 and a standard deviation of 15.

Mensa requires an IQ of 132 or greater to join. What percentage of the population can join Mensa?

_____ (round your answer to 3 decimal places)

If we wanted to start up a society which accepted the top 5% of all IQ scorers, what would our cut-off score need to be?

_____ (round your answer to 3 decimal places)

I used the following ALPHA commands...

2. We have the following supply and demand functions:

$$p_s(x) = 50 \ln(x + 1) + 30 \quad \text{and} \quad p_d(x) = -0.2x^3 + 5.8x^2 - 61x + 250.$$

Market equilibrium $(q_E, p_E) =$ _____

The producer surplus is \$ _____

I used the following ALPHA commands...