Math 206 - Quiz 6

April 2, 2014

Name _____

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (1 point) Julio scored 180 on a math test with mean 157.9 and standard deviation 27.3. Mary scored 43 on a physics test with mean 38.1 and standard deviation 6.2. Compute the corresponding z scores. Who scored better and why?

2. (2 points) The ages of Amtrak passenger train cars are normally distributed with mean 19.4 years and standard deviation 4.05 years. In a sample of 450 train cars, about how many are older than 25 years?

3. (2 points) A certain brand of light bulb has a mean lifetime of 1700 hr with a standard deviation of 150 hr. Assuming the lifetimes are normally distributed, about how many in an order of 5000 will have a lifetime of between 1600 hr and 1800 hr?