

Name: _____

Date: 3/13/2025

Math 130

Quiz 9.5

A formula you may need: $Z = \frac{X - \mu}{\sigma}$

1. (3.5, 3.5, 2, 1 points) Lengths of Elvis songs are normally distributed with a mean of 153 seconds and a standard deviation of 9 seconds.

a) If an Elvis song is randomly selected, what is the probability that it will be at least 166 seconds long?

b) If an Elvis song is randomly selected, what is the probability that it will be between 130 and 149 seconds long?

c) If an Elvis song is randomly selected, what is the probability that it will be less than 133 seconds long?

d) What does the probability you found in part (c) mean?