Math 207
Introduction to Statistics

1. Find the specified area under the normal curve. Show your work.

a) $z < 1.3$ b) $z > 2.3$ c) $-2.1 < z < 0.3$ d) $z < 7.5$

2. Measurements x from tests of a medical device average out to 7.302 with a standard error of 0.015. Assume that the measurements follow a normal curve. Find the percent of measurments x for which:

a) $x < 7.3215$ b) $x > 7.3365$ c) $-7.2705 < x < 7.3065$ d) $x < 7.4145$

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3. In #2, 99% of all measurements are below what value?

4. For the following data, (a) write down the equation for the regression line, (c) sketch the regression line and (c) use the regression line to predict the y value if $x = 27$.

x:	average ≈ 25,	sd ≈ 2	
y:	average ≈ -10,	sd ≈ 30,	$r \approx 0.8$

5. Would the correlation between father's and son's heights be around -1, -0.8, -0.3, 0.3, 0.8 or 1.0?

6. Would the correlation between car horsepower and mpg be around -1, -0.8, -0.3, 0.3, 0.8 or 1.0?

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