Week 7: You will take a picture of your work with your correct answer circled.

Calculate the following Z-scores, then draw and label a sketch for each example in questions 1 and 2.

Formula:

X - mean/standard deviation

1. Depression scores for clients are normally distributed with a mean of 18 and a standard deviation of 3.2. Calculate the z-scores for each of the depression scores below. Draw and label a sketch for each example.

a. 20

b. 13

c. 25

d. 8

2. SAT scores for students are normally distributed with a mean of 960 and a standard deviation of 205. Calculate the z-scores for each of the SAT scores below. Draw and label a sketch for each example.

a. 1160

b. 820

c. 740

d. 1250

The total probability for the normal distribution is 1.00 0r 100%.

Understanding that the Z-table gives us only “less than” probabilities, you may have to use simple math to find the difference in probabilities.

Show your work.

3. Using the table in your statistics book (pages 327-328, find the answer to the following:

a. What is *P* (*Z* < 1.6)?

b. What is P (Z < 0.9)?

c. What is P (-0.5 < Z < 1.0)?

d. What is P (-1.6 < Z < 1.0)?