Accel Precalc Practice Worksheet: Calculating Area Name _____
Unit 1: Data Analysis Using z-scores
Lesson #5

1. What is the total area under the standard normal curve?

2. What percentage of the area falls below the mean?_____ Above the mean? _____

3. About what percentage of the area under the normal distribution curve fall within 1 standard deviation above and below the mean? _____ 2 standard deviations above and below the mean? _____ 3 standard deviations above and below the mean? _____ This is called the _____ Rule.

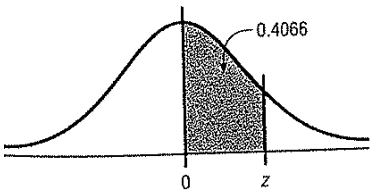
4. Find the area under the standard normal distribution curve:

   a) Between $z = 0$ and $z = 0.75$
   b) Between $z = 0$ and $z = -0.35$
   c) To the right of $z = 0.23$
   d) To the left of $z = -0.48$
   e) Between $z = 0.79$ and $z = 1.28$
   f) Between $z = -0.96$ and $z = -0.36$
   g) Between $z = -1.56$ and $z = -.1.83$
   h) Between $z = 0.24$ and $z = -1.12$
   i) To the left of $z = 2.11$
   j) To the right of $z = -1.92$
   k) To the right of $z = 1.92$ and to the left of $z = -0.44$

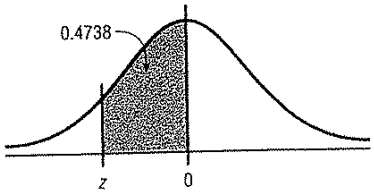
5) Find the probabilities for each using the standard normal curve.
   a) $P(0 < z < 0.67)$
   b) $P(-1.23 < z < 0)$
   c) $P(z > 2.83)$
   d) $P(z < -1.77)$
   e) $P(-2.46 < z < 1.74)$
   f) $P(1.46 < z < 2.97)$
   g) $P(z > -1.39)$
   h) $P(z < 1.42)$

6) Find the z score that corresponds to the given area.

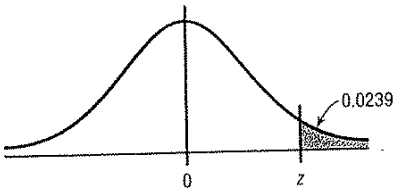
a)



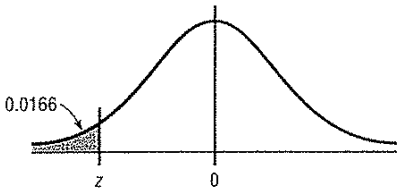
b)



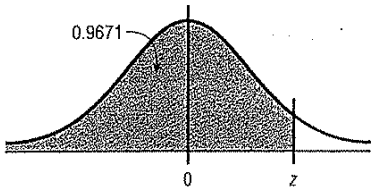
c)



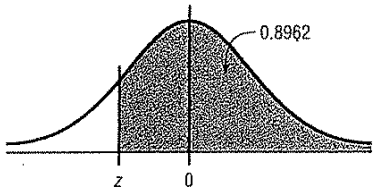
d)



e)



f)



7) Find the z value to the right of the mean so that

a. 53.98% of the area under the distribution curve lies to the left of it.

b. 71.90% of the area under the distribution curve lies to the left of it.

c. 96.78% of the area under the distribution curve lies to the left of it.

8) Find the z value to the left of the mean so that

a. 98.87% of the area under the distribution curve lies to the right of it.

b. 82.12% of the area under the distribution curve lies to the right of it.

c. 60.64% of the area under the distribution curve lies to the right of it.