Time Frame: 50 minutes

Subject Matter: Area Under a Normal Curve

TELL ME

Objective: TSWBAT find the area under the normal curve to the left/right of any z value, where z is greater/less than the mean.

Standards: DA – 5.6

 Materials: Transparencies and Worksheets

SHOW ME

Presentation of Information:

The teacher will discuss the following:

Example 1: Find the area to the left of z = 1.99

Solution:

Since table E gives only the area between z = 0 and z = 1.99, one must add 0.5000 to the table area, since 0.5000 (one-half) of the total area lies on the left z = 0. The area between z = 0 and z = 1.99 is 0.4767, and the total area is 0.4767 + 0.5000 = 0.9767 or 97.67%.

Example 2:

 Find the area to the right of z = -1.16

Solution:

The area between z = 0 and z = -1.16 is 0.3770. Hence, the total area is 0.3770 + 0.5000 = 0.8770 or 87.70%

Let Me Try

Find the area under the normal distribution curve.

1. To the left of z = 2.18
2. To the left of z = 1.98
3. To the left of z = 2.04
4. To the right of z = -1.96
5. To the right of z = -2.33

Homework

Find the area under the normal distribution curve.

1. To the left of z = 1.19
2. To the left of z = 1.74
3. To the left of z = 2.75
4. To the right of z = -2.26
5. To the right of z = -1.37