Time Frame: 50 minutes

Subject Matter: Area Under a Normal Curve

TELL ME

Objective: TSWBAT find the area under the normal curve in either tail.

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 right of z = 1.11

Solution:

1. Draw the figure.
2. The required area is in the tail of the curve.
3. Since, table E (each student will have a copy) gives the area between z = 0 and z = 1.11, first find that area.
4. Then subtract this value from 0.5000, since one-half of the area under the curve is to the right of z = 0.

Example 2: Find the area to the left of z = -1.93.

Solution:

1. Again, table E gives the area for positive z values. But from symmetric property of the normal distribution, the area to the left of -1.93 is the same as the area to the right of z = 1.93.
2. Now, find the area between 0 and 1.93 and subtract it from 0.5000.

Let Me Try

Find the area under the normal distribution curve.

1. To the right of z = 1.09
2. To the right of z = 0.23
3. To the left of z = -1.64
4. To the left of z = -2.45
5. To the left of z = -1.52

Homework

Find the area under the normal distribution curve.

1. To the right of z = 2.51
2. To the right of z = 1.23
3. To the left of z = -2.34
4. To the left of z = -1.34
5. To the left of z = -1.21