# TOPIC: STANDARD NORMAL DISTRIBUTION WITH GRAPHING CALCULATOR

## Probability From Given Z–Scores – TI-84 (CE) Calculator

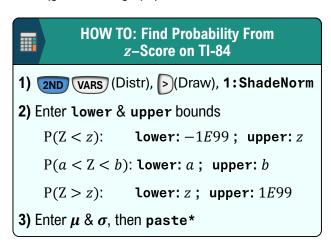
- ◆ By using a calculator, you can find probabilities to the *left*, *right*, or *between z*-Scores quickly!
  - ► To find probabilities, use **normalcdf** (gives # only) or **ShadeNorm** (gives # and graph).

#### **EXAMPLE**

Sketch a graph to represent each problem. Use a calculator to find the probability.

(A) P(Z < -0.81)

(B) P(-1 < Z < 1)



\* Press 2ND PRGM, 1:ClrDraw when done

Window Settings:

PRACTICE

Sketch a graph to represent the probability, then use a calculator to find it.

P(Z > 1.14)

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### **Z–Scores From Given Probability – TI-84 Plus CE Calculator**

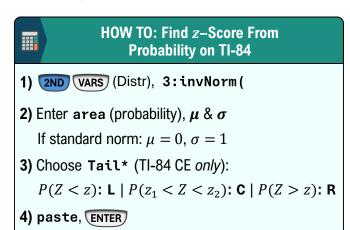
◆ To find z-scores when given an area or probability, use the **3:invNorm(** function.

#### **EXAMPLE**

Sketch a graph to represent each problem. Use a calculator to find the z-score.

(A) 
$$P(Z < z) = 0.0853$$

(**B**) 
$$P(Z > z) = 0.3409$$



\* TI-84 Plus (not CE) always assumes areas from left

#### PRACTICE

Use a calculator to find the z-scores of the region shown in the standard normal distribution below.

