

## I. z-score (p.289):

measure of how far a data value is from the mean ( $\mu$ ) in terms of the standard deviation ( $\sigma$ )

$$z = \frac{x - \mu}{\sigma}$$

“ $x$ ” is any data value in a normal distribution

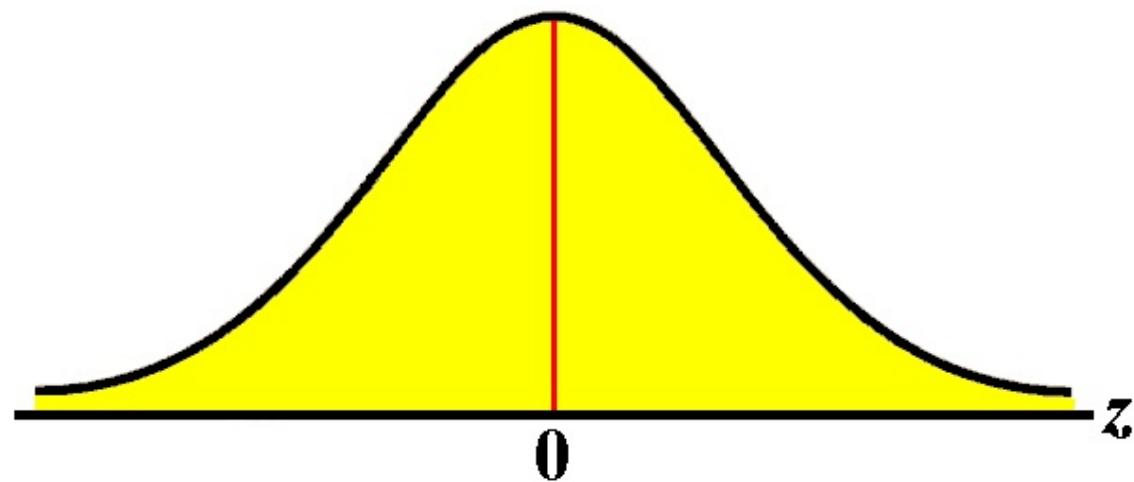
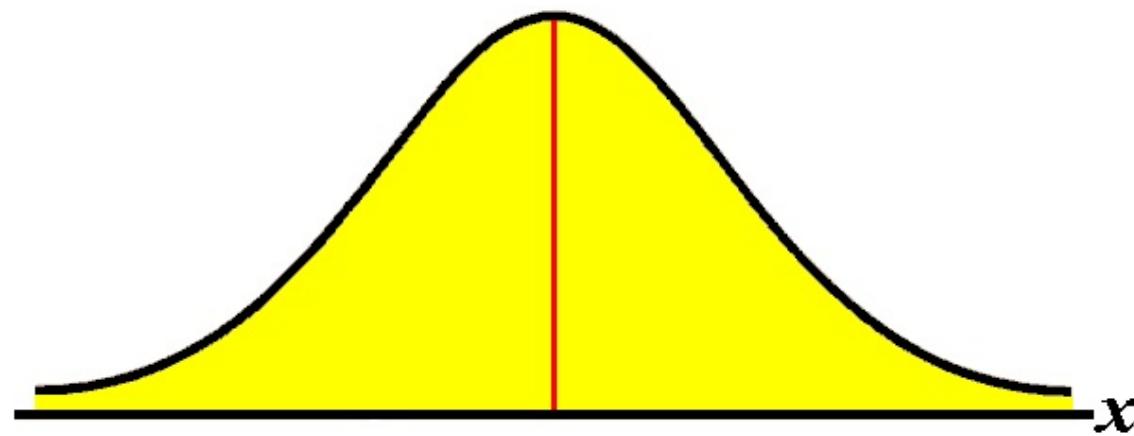
## II. Examples (p.297): #6,8

## III. Standard Normal Distribution (p.291):

1. Normal curve (distribution) where...  $\mu = 0$  and  $\sigma = 1$
2. Area under the curve?  
% represented in Appendix (p. A22) – refer to Table 5
3. Table 5 gives  $P(z < b)$  or  $P(z \leq b)$       i.e., % area left of  $z = b$
4. Examples (pp.298-299): #14-50(even)

HW: pp.297-299 / #1-31(odd),35,39,43  
Read pp.299-308 (section 6.3)

## I. Using the Standard Normal Distribution:



II.  $P(a < x < b) = P(z_a < z < z_b)$

where  $z_a = (a - \mu) \div \sigma$

and  $z_b = (b - \mu) \div \sigma$

III. Examples (pp.309-313): #**2,6,12,26,30**

HW: pp.308-313 / #1-23(odd),25,29