

### 6.3 NORMAL DISTRIBUTION: FINDING PROBABILITIES

These are more realistic cases with a  $\mu \neq 0$  and  $\sigma \neq 0$ .

Step 1: Draw graph shading the area desired.

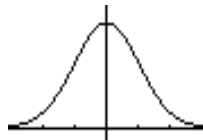
Step 2: Find  $z$ -Score which shifts to Normal of  $\mu = 0, \sigma = 1$

$$\textbf{Z-SCORE: } z = \frac{x - \mu}{\sigma}$$

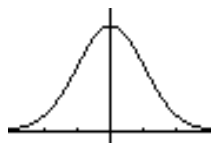
Step 3: Use table A-2 to find areas bounded by the centerline.

Step 4: Answer problem

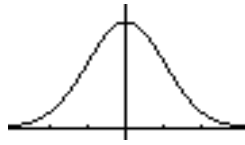
\*\*\* #14, pg. 272 IQ Scores



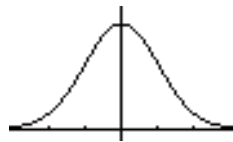
\*\*\*#16, pg. 272 IQ Scores



\*\*\*#18, pg. 273



\*\*\*#22, pg. 273



\*\*\*#28, pg. 274

