Name_____**Date**_____**Period**_____**Score**_____

Z – Score: # of standard deviation away from the mean.

FORMULA: z-score $= \dfrac{\text{value } - \bar{x}}{\sigma}$

1. **A distribution for scores has a standard deviation of 10.** **Find the z-scores corresponding to each of the follow values:**	**1.**
a) **A score of 60 and mean of 40.**	**a)**_____
b) **A score of 80 and mean of 30.**	**b)**_____
	c)_____
c) **A score of 20 and mean of 50.**	**d)**_____
d) **A score 30 points below the mean.**	

2. **Women's heights have a mean of 63.6 inches and a standard deviation of 2.5 inches.**	**2.**
a) **Find the z-score of a height of 67 inches.**	**a)**_____
b) **Find the z-score of a height of 72 inches.**	**b)**_____
c) **Find the z-score of a height of 44 inches.**	**c)**_____
d) **What is the height that is 2 standard deviations BELOW the mean?**	**d)**_____

3. **Three students take equivalent stress tests in different groups.** **Calculate the z-score for each of the following:**	**3.**
a) **A score of 144 with a mean of 128 and standard deviation of 34.**	**a)**_____
b) **A score of 90 with a mean of 80 and standard deviation of 18.**	**b)**_____
c) **A score of 18 with a mean of 15 and standard deviation of 5.**	**c)**_____
d) **Which of these 3 had the "highest relative score"** **(i.e. largest z- score?)**	**d)**_____