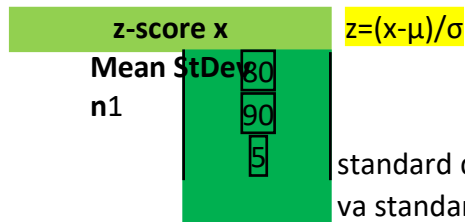1. Scores on a certain exam are normally distributed with a mean of 90 and a variance of 25. What is th

z value	80
mean	90
variance	25

Standard Deviation is the square root of

z-score x	$z=(x-\mu)/\sigma$
Mean StDev 80	
n1 90	
5	

standard deviation = square root of va standard deviation = square root(25)

z-score = -2.00

2. Scores on a certain exam are normally distributed with a mean of 90 and a variance of 25. What is th

z value		St Dev
mean	90	5
variance	25	

LESS Than

	P(X < x)	x
Precise answer	0.022750	80

GREATER Than

x	P(X > x)
22	1.000000

3. Which one of the following is not a characteristic of a normal distribution?

4. If the z-value of a given x value is positive, it means that

5. Assume a normal distribution and find the following probabilities.

Mean	St Dev
70	2.87

LESS Than

	P(X < x)	x
Precise answer	0.0000	25

GREATER Than

x	P(X > x)
85	0.0000

a. P(x < 25 | μ = 27 and σ = 3)
b. P(x ≥ 66 | μ = 50 and σ = 7)
c. P(x > 44 | μ = 50 and σ = 5)
d. P(20 < x < 27 | μ = 25 and σ = 3)
e. P(x ≥ 85 | μ = 70 and σ = 2.87)

6. Suppose X is normally distributed with mean 50 and standard deviation 4, what is P(45 < X < 58) ?

Mean	St Dev
50	4