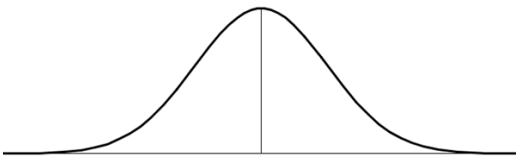
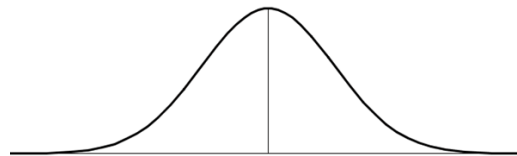
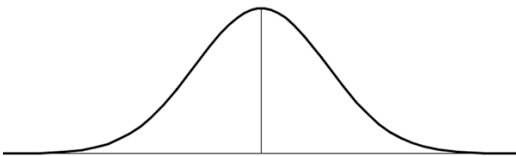
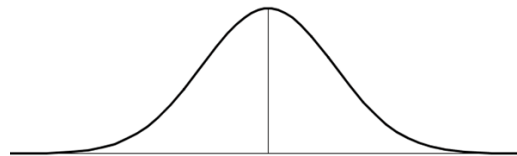


Name _____ Basics of Normal Curve 1-8-19 $Z = \frac{x - \bar{x}}{s}$ where \bar{x} = mean of sample and s = sample standard deviation

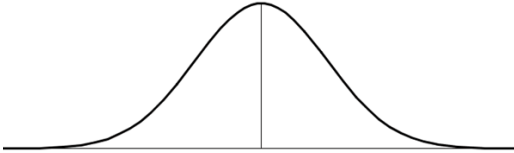
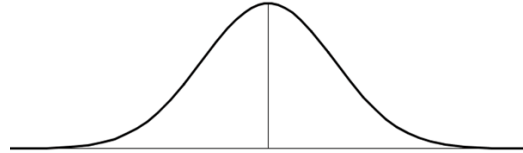
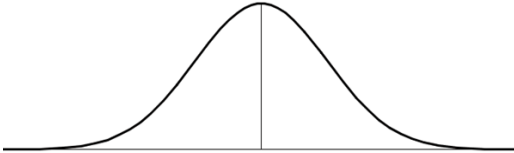
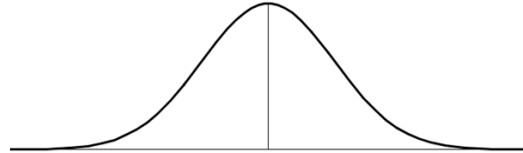
<p>1. Given a mean of 2250 and standard deviation of 50 Determine $P(x \leq 2205)$</p> <p>USING CHART Related z score and probability</p> <p>Z = _____</p> <p>$P(x \leq 2205) =$ _____</p>	<p>Sketch the related normal curve with X scale</p> 	<p>2. Given a mean of 2250 and standard deviation of 50 Determine $P(x \leq 2305)$</p> <p>USING CHART Related z score and probability</p> <p>Z = _____</p> <p>$P(x \leq 2305) =$ _____</p>	<p>Sketch the related normal curve with X scale</p> 
<p>3. Given a mean of 2250 and standard deviation of 50 Determine $P(x \geq 2195)$</p> <p>USING CHART Related z score and probability</p> <p>Z = _____</p> <p>$P(x \geq 2195) =$ _____</p>	<p>Sketch the related normal curve with X scale</p> 	<p>4. Given a mean of 2250 and standard deviation of 50 Determine $P(x \geq 2345)$</p> <p>USING CHART Related z score and probability</p> <p>Z = _____</p> <p>$P(x \geq 2345) =$ _____</p>	<p>Sketch the related normal curve with X scale</p> 

5. Explain the process of answering #1 and #2

6. Explain the process of answering #3 and #4

7. What is the difference in process from 1 & 2 to 3 & 4?

$$Z = \frac{x - \text{mean}}{SD} \quad X = Z(SD) + \text{mean}$$

<p>8. Given a mean of 2250 and standard deviation of 50 GIVEN $P(x \leq A) = 0.7967$</p> <p>USING CHART Determine related z score and x score</p> <p>Z = _____</p> <p>A = _____</p>	<p>Sketch the related normal curve with X scale</p> 	<p>9. Given a mean of 2250 and standard deviation of 50 Determine $P(x \leq B) = 0.2236$</p> <p>USING CHART Determine related z score and x score</p> <p>Z = _____</p> <p>B = _____</p>	<p>Sketch the related normal curve with X scale</p> 
<p>10. Given a mean of 2250 and standard deviation of 50 Given $P(x \geq C) = 0.9960$</p> <p>USING CHART Related z score and probability</p> <p>Z = _____</p> <p>C = _____</p>	<p>Sketch the related normal curve with X scale</p> 	<p>11. Given a mean of 2250 and standard deviation of 50 Given $P(x \geq D) = 0.1038$</p> <p>USING CHART Related z score and probability</p> <p>Z = _____</p> <p>D = _____</p>	<p>Sketch the related normal curve with X scale</p> 

12. Explain the process of answering #8 and #9

13. Explain the process of answering #10 and #11

14. What is the difference in process from 8 & 9 to 10 & 11?

Name _____ HWK Basics of Normal Curve 1-8-19 will be checked at beginning of period 1-9-18

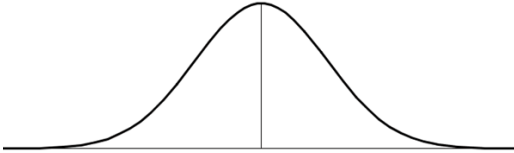
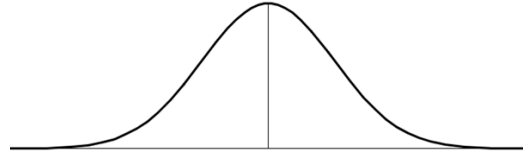
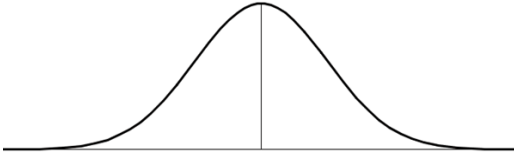
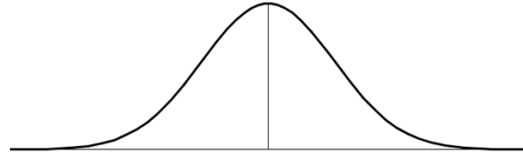
$$Z = \frac{x - \bar{x}}{s} \quad \text{where } \bar{x} = \text{mean of sample and } s = \text{sample standard deviation}$$

<p>1. Given a mean of 2500 and standard deviation of 100 Determine $P(x \leq 2475)$</p> <p>USING CHART Related z score and probability</p> <p>Z = _____</p> <p>$P(x \leq 2475) =$ _____</p>	<p>2. Given a mean of 2500 and standard deviation of 100 Determine $P(x \leq 2675)$</p> <p>USING CHART Related z score and probability</p> <p>Z = _____</p> <p>$P(x \leq 2675) =$ _____</p>
<p>3. Given a mean of 2500 and standard deviation of 100 Determine $P(x \geq 2460)$</p> <p>USING CHART Related z score and probability</p> <p>Z = _____</p> <p>$P(x \geq 2460) =$ _____</p>	<p>4. Given a mean of 2500 and standard deviation of 100 Determine $P(x \geq 2620)$</p> <p>USING CHART Related z score and probability</p> <p>Z = _____</p> <p>$P(x \geq 2620) =$ _____</p>

5. Which problems had negative Z scores? Explain WHY

6. Which problems required the use of a complement? Explain WHY

$$Z = \frac{x - \text{mean}}{SD} \quad X = Z(SD) + \text{mean}$$

<p>7. Given a mean of 2500 and standard deviation of 100 GIVEN $P(x \leq A) = 0.1867$</p> <p>USING CHART Determine related z score and x score</p> <p>Z = _____</p> <p>A = _____</p>	<p>Sketch the related normal curve with X scale</p> 	<p>8. Given a mean of 2500 and standard deviation of 100 Determine $P(x \leq B) = 0.9896$</p> <p>USING CHART Determine related z score and x score</p> <p>Z = _____</p> <p>B = _____</p>	<p>Sketch the related normal curve with X scale</p> 
<p>9. Given a mean of 2500 and standard deviation of 100 Given $P(x \geq C) = 0.5557$</p> <p>USING CHART Related z score and probability</p> <p>Z = _____</p> <p>C = _____</p>	<p>Sketch the related normal curve with X scale</p> 	<p>10. Given a mean of 2250 and standard deviation of 50 Given $P(x \geq D) = 0.2578$</p> <p>USING CHART Related z score and probability</p> <p>Z = _____</p> <p>D = _____</p>	<p>Sketch the related normal curve with X scale</p> 

11. Explain why #7 and #8 are easier to answer than #9 and #10

12. What happens if the probability you are given does NOT fall within your z chart?

13. Where are probabilities written in the Z chart? On the outside edges or in the main body of the chart?