**Name:** _____
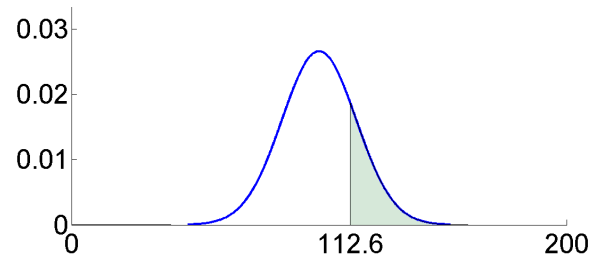
1. **Find the area of the shaded region.** IQ scores of adults are normally distributed with a mean of 100 and a standard deviation of 15.
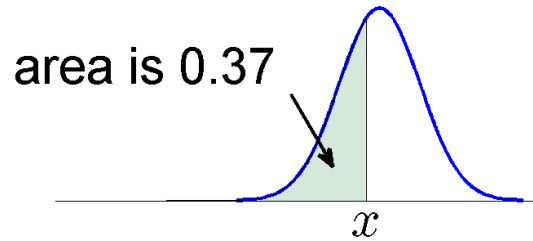
   1. _____
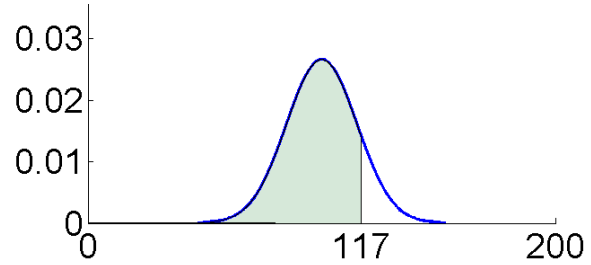


2. **Find the area of the shaded region.** IQ scores of adults are normally distributed with a mean of 100 and a standard deviation of 15.

   2. _____

3. **Find the unknown IQ score,**
   **_x_.** IQ scores of adults are normally
   distributed with a mean of 100 and
   a standard deviation of 15.

   area is 0.37

   3. _____

   $x$

4. Men's heights are normally distributed with a mean of 69 inches and standard
   deviation of 2.8 inches. The U.S. Marine Corps requires that men have heights
   between 64 inches and 80 inches.

   (a) Find the percentage of men who meet the height requirements. Are many men
       denied the opportunity to become a Marine because they do not satisfy the
       height requirements?

   (b) If the height requirements are changed so that all men are eligible except the
       shortest 3% and tallest 4%, what are the new height requirements?