Normal Distribution

Properties:

1. The curve is bell-shaped with total area under the normal curve is 1.
2. Mean, mode, and median are all equal.
3. It is symmetrical about the mean \( \mu \).
4. Population mean \( \mu \) and standard deviation \( \sigma \) are given.
5. Use \( x \) when working with normal distribution.
6. \( x \) is a continuous random variable with \( P(x = a) = 0 \)

Good Practice and habit:

1. Always draw the bell-shaped curve.
2. Always mark and label clearly the bell-shaped curve with \( \mu, \sigma \), and other important information related to the problem.
3. Always shade the desired area under the normal curve related to the problem.