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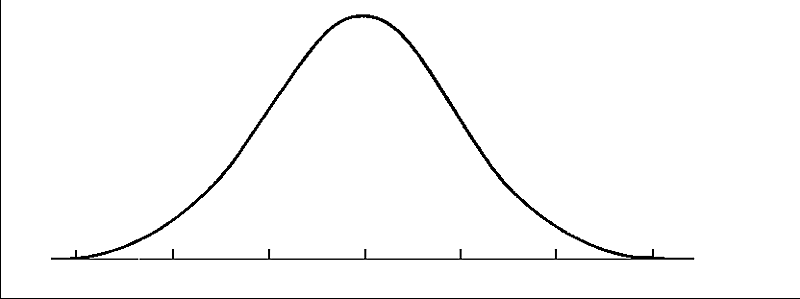
**Notes**

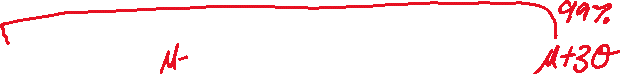
***The Normal Distribution***

**Definition:**

**Standard Deviation:**

**Normal Distribution**





**The Empirical Rule**

**Example: The heights of players in a basketball league are normally distributed with a mean of 6 feet 1 inch and a standard deviation of 2 inches.**



**EGG PRODUCTION** The number of eggs laid per year by a particular breed of chicken is normally distributed with a mean of 225 and a standard deviation of 10 eggs.

**MANUFACTURING** The diameter of bolts produced by a manufacturing plant is normally distributed with a mean of 18 mm and a standard deviation of 0.2 mm.