

# **Grade 12 Math of Data Management**

MDM4U

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## Chapter 2

# Normal Distribution

## 2.1 Normal Distributions

### 2.1.1 Definitions

#### **Definition 2.1.1** (Normal Distribution)

*The properties of normal distributions can be described as this:*

1. Graphical displays are mound-shaped histograms that are also **Bell-Shaped**
  2. The *MEAN*, *MEDIAN* and *MODE* fall on the line of symmetry
  3. Denoted by the notation  $X \sim N(\mu, \sigma^2)$  where  $\mu$  is the mean and  $\sigma$  is the standard deviation
  4. Modelled by a **NORMAL CURVE** where the curve passes through the midpoint of the top of each bar of the histogram of the data.
  5. The stadnard normal curve has a mean of 0 and a standard deviation of 1
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