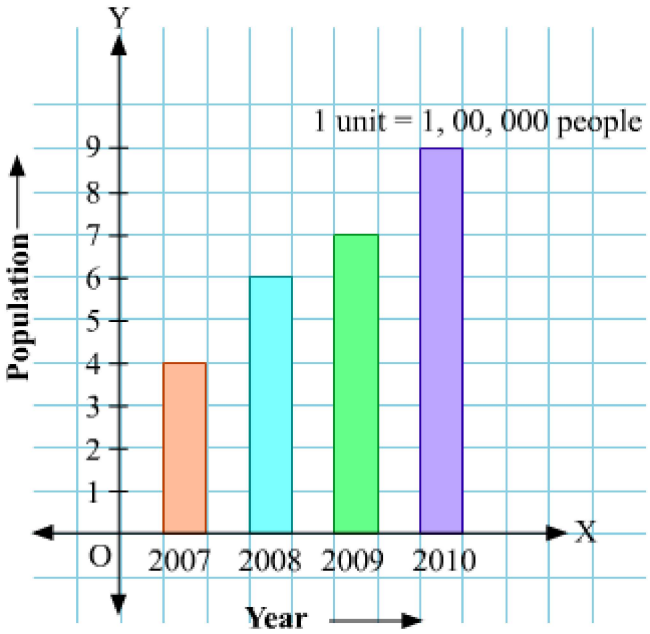
6. Bar Graphs

- We can interpret a bar graph by reading and analyzing it.

  For example, the given bar graph represents the population of a small town in four consecutive years.



We can analyze the given bar graph and answer the following questions.

1. What is the population of town in 2010?

Solution: The population of town in 2010 = 1,00,000 × 7 = 7,00,000

2. In which year was the population of town maximum?

Solution: Population of town in 2007 = 1,00,000 × 4 = 4,00,000

Population of town in 2008 = 1,00,000 × 6 = 6,00,000

Population of town in 2009 = 1,00,000 × 7 = 7,00,000

Population of town in 2010 = 1,00,000 × 9 = 9,00,000

So, population of town was maximum in 2010.

3. By how much does the population increased from 2007 to 2010?

Solution: Difference between the population of 2010 and 2007 = 9,00,000 – 7,00,000 = 2,00,000

So, population of the town is increased by 2,00,000 from 2007 to 2009.

- Data can also be represented by using **bar diagram** or **bar graph**.

In a bar graph, bars of uniform width are drawn horizontally or vertically. These bars are placed at equal distance from each other. The length of each bar gives the required information.

Example:
The given data represents the number of bikes sold by a retailer in the first five months of a year. Construct a bar graph of this data.

Month	Number of bikes sold
January	560
February	720
March	600
April	450
May	820

Solution:
To draw the bar graph for the given data, we proceed as follows:

- Draw two perpendicular lines, one vertical and one horizontal
- Mark the months along the horizontal line and mark the corresponding number of bikes along the vertical line.
- Draw bars of same width and maintain uniform gaps between them.
- Choose a suitable scale along the vertical line. Let 1 unit length = 100 bikes sold and mark the corresponding values.

Hence, the bar graph of the given data can be drawn as: