Name: .... Class: ....

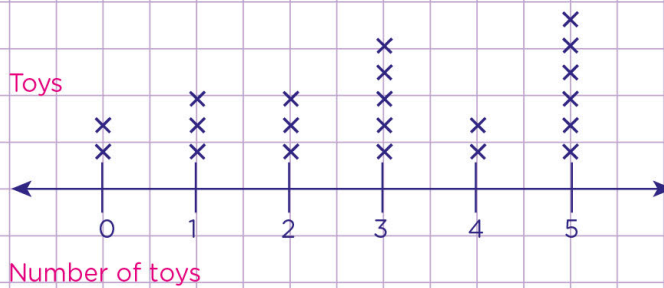## Interpret line plots for the mode, mean, median and range
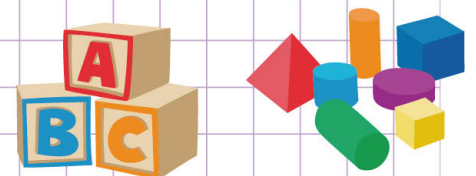
Yesterday, Mrs. Noah attended their local neighbourhood meeting. During the meeting, they started discusing the number of toys each of their children owns. This information was put on a line plot. Study the line plot and answer the following questions.

Toys

```
                                              ×
                                              ×
                              ×               ×
                  ×       ×   ×               ×
          ×       ×       ×   ×       ×       ×
          ×       ×       ×   ×       ×       ×
      <---|-------|-------|---|-------|-------|--->
          0       1       2   3       4       5
```
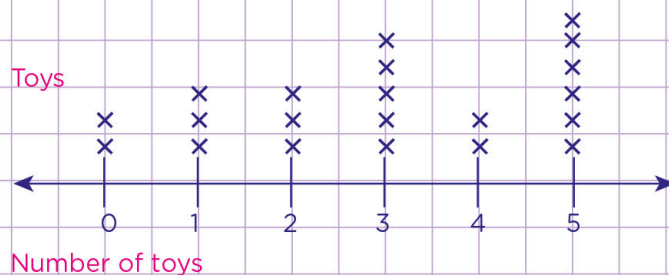
Number of toys

1. What is the mode of the numbers?

2. Find the mean of the numbers.

3. What is the range of the numbers?

Name: .... Class: ....

Interpret line plots for the mode, mean, median and range

Yesterday, Mrs. Noah attended their local neighbourhood meeting. During the meeting, they started discusing the number of toys each of their children owns. This information was put on a line plot. Study the line plot and answer the following questions.

Toys

Number of toys

1. What is the mode of the numbers?

First of all let's interpret the line plot by reading the numbers inorder from left to right on the line plot.

You see that,

O has two x's, so, there are four ones in the data set.

Two has three x's, so, there are three twos in the data set.

three has five x's so, there are five three in the data set.

four has two x's so, there are two fours in the data set.

0, 0, 1, 1, 1, 2, 2, 2, 3, 3, 3, 3, 3, 4, 4, 5, 5, 5, 5, 5, 5.

Let's pick the highest occuring number in the data set.

5 apears six times. so, 5 is the higest occuring number.

Hence the mode of numbers = 5.

2. Find the mean of the numbers.

To find the mean, let's use the formula

$$mean = \frac{\text{Sum of all numbers}}{\text{number of values in the data set}}$$

$$mean = \frac{0 + 0 + 1 + 1 + 1 + 2 + 2 + 2 + 3 + 3 + 3 + 3 + 3 + 4 + 4 + 5 + 5 + 5 + 5 + 5 + 5}{20}$$

$$= \frac{62}{20} = 3.1 \qquad \text{Therefore, the mean of numbers = 3.1}$$

3. What is the range of the numbers?

To find the range, let's subtract the lowest number from the highest number in the data set.

So range = 5 - 0 = 5

Therefore, the range of numbers = 5.