Unit 10 : Data Analysis and Probability

Organizing and Analyzing Data

The results of surveys can be organized in different ways to help us analyze the data more easily. For example, we can organize the data from the least value to the largest value or we can use a line plot to present the data. The middle number of a set of data is called the **median**. The value that appears most often in a set of data is the **mode** of the data. There can be more than one mode.

A survey was conducted to find the number of fruits 20 students eat in a day. The data collected is recorded in the tally chart.

Number of fruits eaten	Tally
0	////
1	//// /
2	//// //
3	///

We organize the data from least to most.
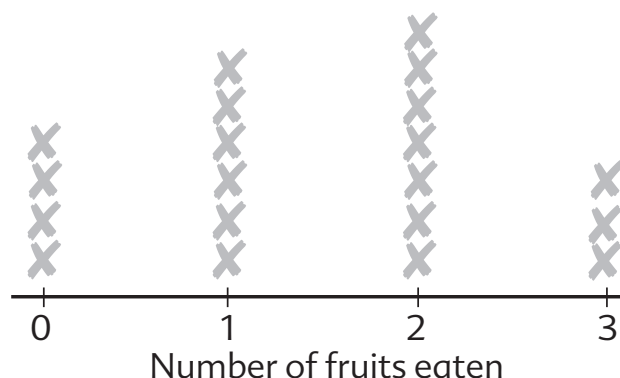
0, 0, 0, 0, 1, 1, 1, 1, 1, 1, 2, 2, 2, 2, 2, 2, 2, 3, 3, 3

middle
numbers

Median $= \dfrac{1+2}{2} = 1.5$

Mode $= 2$

The data is shown on a line plot as follows:

Number of fruits eaten

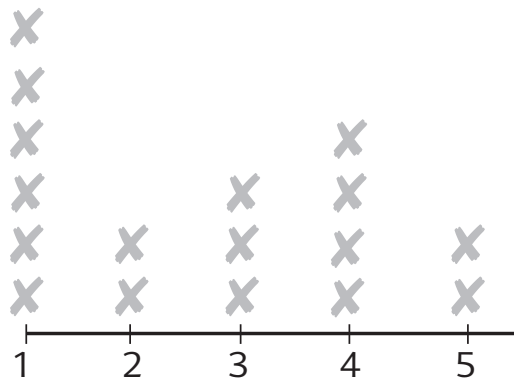Primary Mathematics (Standards Edition) Extra Practice 4

Exercise 2 : Probability Experiments

1. There are green, red and blue balls in a bag. Jack drew 5 balls from a bag each time.

    The line plot shows the number of green balls drawn on 5 tries each time.

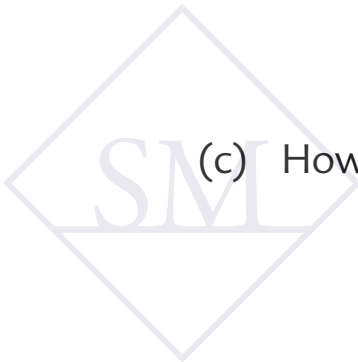   (a) How many times did he draw only 1 green ball for every 5 tries?

    _____

    (b) How many times did he draw 4 green balls for every 5 tries?

    _____

    (c) How many 5 tries did Jack attempt?

    _____

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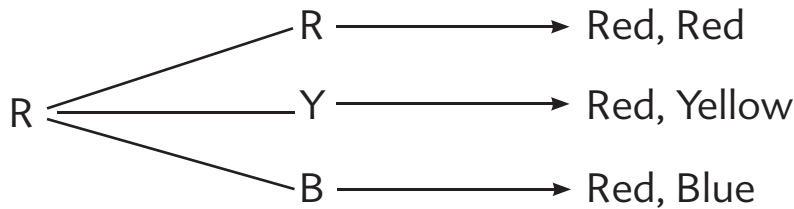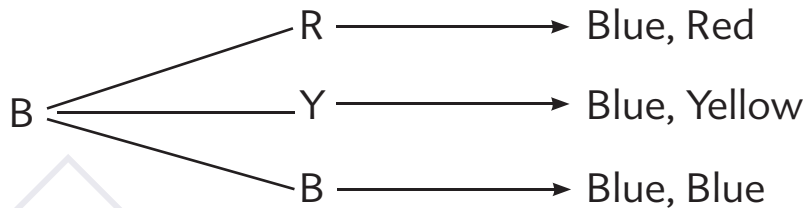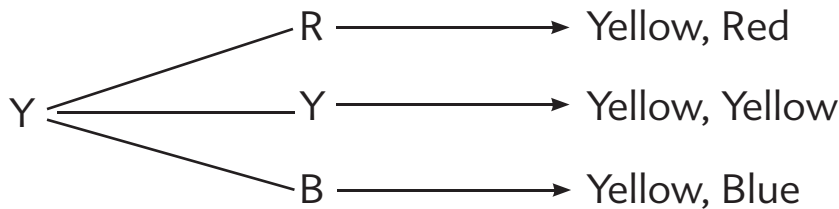
Exercise 3 : Order of Outcomes

1. There are red, blue and yellow marbles in a bag. Susie draws out two marbles, one marble at a time. What are the possible outcomes?

Color of 1st marble	Color of 2nd marble	Outcome

R
- R ⟶ Red, Red
- Y ⟶ Red, Yellow
- B ⟶ Red, Blue

1st marble is red.

Y
- R ⟶ Yellow, Red
- Y ⟶ Yellow, Yellow
- B ⟶ Yellow, Blue

B
- R ⟶ Blue, Red
- Y ⟶ Blue, Yellow
- B ⟶ Blue, Blue

There are _____ possible outcomes.