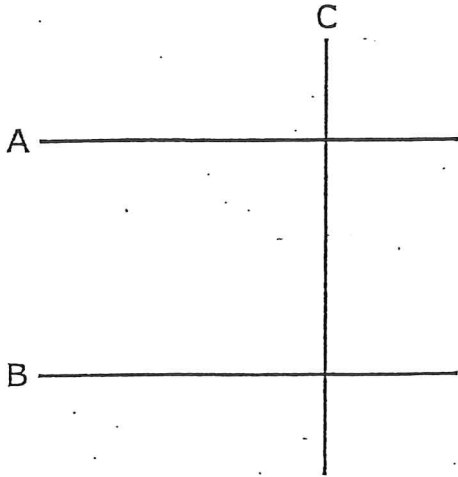# Session 1: Mathematics

1 The lines below represent 3 streets in Javier's neighborhood.

Main Street is perpendicular to First Avenue.

Pike Street is parallel to Main Street.

Use the information above to label each street in Javier's neighborhood.
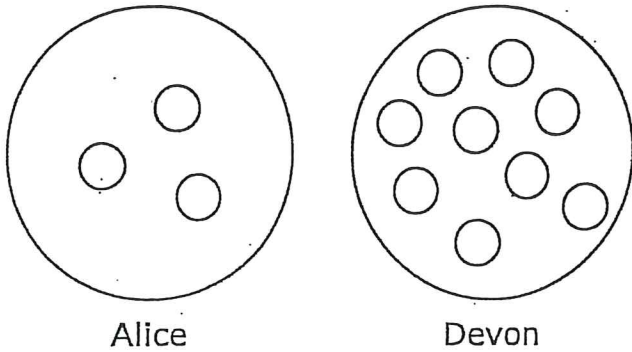
A _____

B _____

C _____

Use words, numbers, or symbols to justify the labels for each of the streets in Javier's neighborhood.

_____

_____

_____

_____

Go On

Mathematics

2 At a restaurant, Alice ordered a 3-piece chicken nugget meal and her brother Devon ordered a 9-piece chicken nugget meal. Both of them gave $\frac{1}{3}$ of their chicken nuggets to their mom. The diagram below shows the number of chicken nuggets in both meals.

Alice   Devon

How many chicken nuggets did their mom receive?

Answer _____ chicken nuggets

What fraction of chicken nuggets did Devon have LEFT?

Show All Work
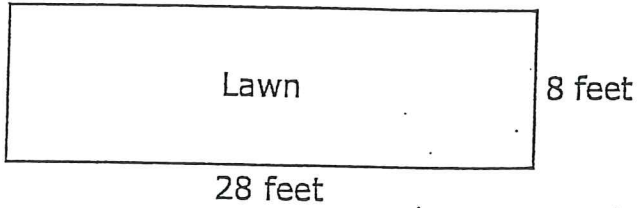
Answer _____

Go On

3 Michael is mowing the front lawn at his house. A diagram of the rectangular lawn is shown below.

```
+-----------------------------+
|                             |
|          Lawn               | 8 feet
|                             |
+-----------------------------+
          28 feet
```

Michael can mow an area of 56 square feet in 5 minutes.

How long, in minutes, will it take Michael to mow the front lawn?

Area of rectangle = lw

= length × width

Show All Work

Answer _____ minutes
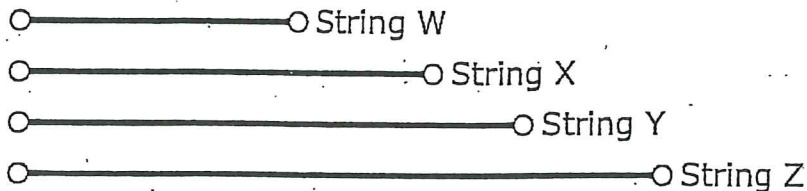
⚠ **ATTENTION! Please do not leave your punchouts in this book.**

STOP! ____ STOP! ____ STOP! ____ STOP! ____ STOP! ____

Session 4: Science

1 A student cuts a string into four pieces of different lengths. She stretches each string between two nails, as shown below.

O———————————O String W
O———————————————O String X
O———————————————————O String Y
O———————————————————————O String Z

The student plucks the strings and listens to the pitch of the sound each one makes. She records the results in the table below.

Sounds of Four Strings

String	Length (cm)	Pitch
W	7	high
X	10	medium
Y	12	low
Z	15	very low

Describe how the length of a string affects its pitch.

_____

_____

Describe how the length of a string affects the rate of vibrations when the string is plucked.

_____

_____

Go On

Science
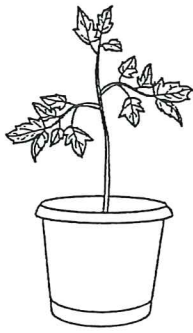
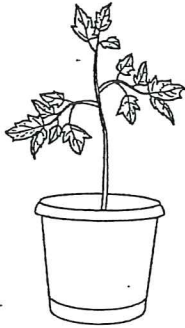The student decides to stretch String Y more tightly between the two nails.

Explain how this will change the pitch and the rate of vibrations when the string is plucked.
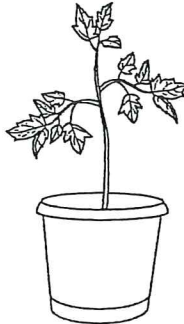
_____

_____

4 Tanya wanted to find out whether using plant food on her tomato plants would help them grow taller. She started with the four plants shown below.
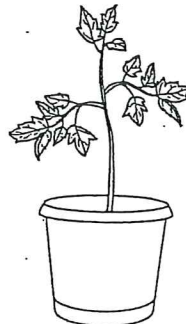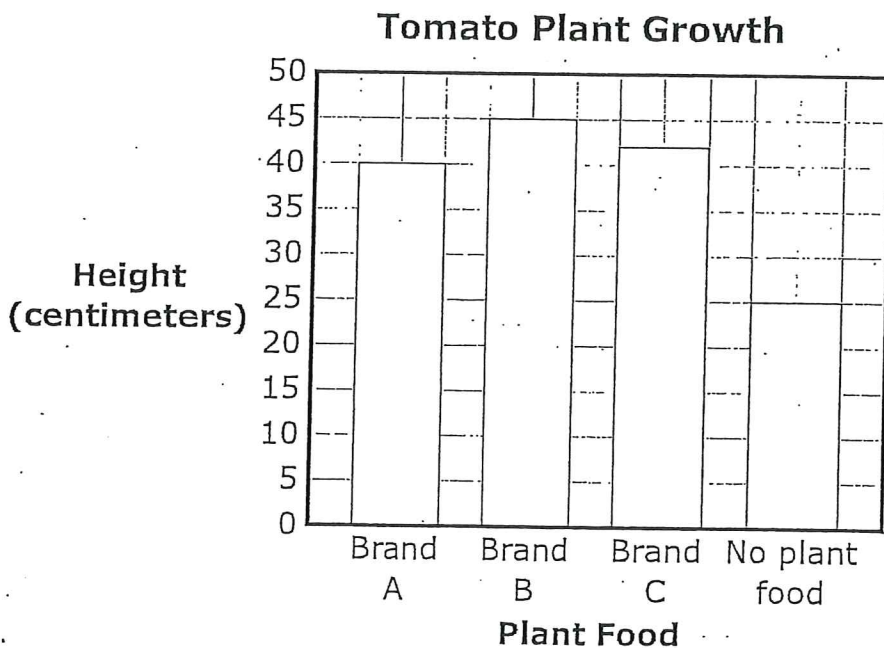

Brand A   Brand B   Brand C   No plant food

Tanya added two grams of brand A plant food to the first pot, two grams of brand B to the second pot, and two grams of brand C to the third pot. She did not add any plant food to the fourth pot. During her investigation, Tanya watered each plant twice a week with the same amount of water and kept all other conditions the same for the plants. After two weeks, she measured the height of the plants. Her results are shown in the graph below.

Tomato Plant Growth

Height (centimeters)

Plant Food

Go On

Identify TWO different tools Tanya needed to take the measurements during her investigation.

1) _____

2) _____

Compare the amount of growth of the three plants that were given plant food to the plant that did NOT receive any plant food.

_____

_____

_____

According to the information in the graph, what conclusion can Tanya make about using plant food on plants?

_____

_____

According to the information in the graph, what conclusion can Tanya make about the different brands of plant food?

_____

_____

STOP! ____ STOP! ____ STOP! ____ STOP! ____ STOP! ____

Science

STOP