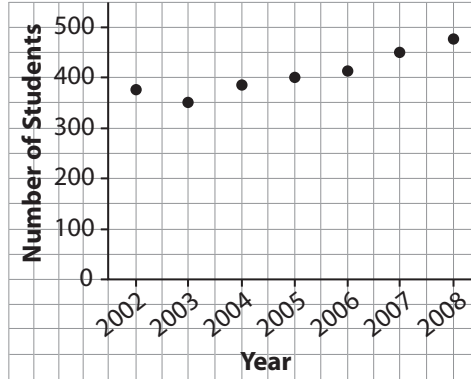# Interpreting Graphs

Quick Review

At Home
At School

➤ This graph is a series of points that are not joined.
It shows **discrete data**.
There are gaps between values.
Usually, discrete data represent things that can be counted.

Number of Students at Elm School

➤ This graph shows consecutive points joined by line segments.
This is called a **line graph**.
It shows **continuous data**.
Continuous data can include any value between data points.
Time, money, temperature, and measurements are continuous.

Growth of Sunflower
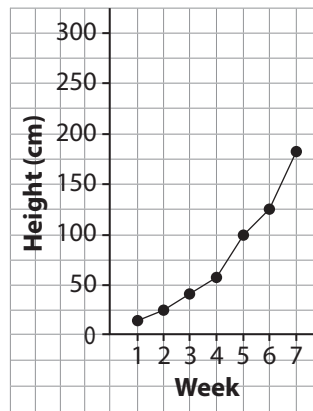
Try These

1. Would you use a series of points or a line graph to display each set of data?

   a) the diameter of a maple tree over 10 years _____

   b) the number of hot dogs sold on Hot Dog Day _____

   c) the length of a snake as it grows _____

   d) the population of Richmond, BC, from 2005 to 2008 _____

Practice

1. a) What does this line graph show?

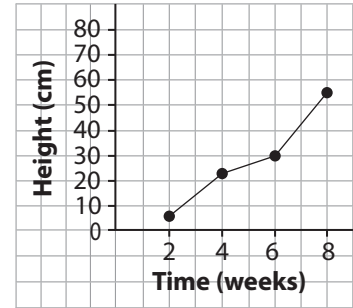_____

b) About how tall was the beanstalk at each time?

•2 weeks _____ •4 weeks _____

•6 weeks _____ •8 weeks _____

Height of Beanstalk

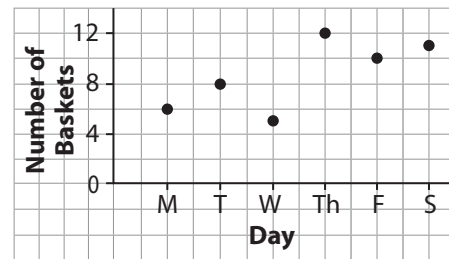

c) What conclusions can you make from the graph?

_____

_____

2. a) Use the graph. How many baskets of apples did Jay pick on each day?

• Monday ___

• Thursday ___

• Altogether ___

Jay's Apple Picking

b) What conclusions can you make from the graph?

_____

_____

_____

Stretch Your Thinking

Describe a set of data for which you would use:

a) a line graph _____

**b)** a series of points _____

_____

Drawing Graphs

Quick Review

At Home
At School

➤ This table shows the changes in temperature from 8:00 am to 12:00 pm on Jake's birthday.

Time	Temperature (°C)
8:00 am	14
9:00 am	15
10:00 am	17
11:00 am	18
12:00 pm	20

To display these data:
- Draw and label 2 axes.
- Choose an appropriate scale for each axis.
- Mark points for the data.
- Both time and temperature are continuous. So, join consecutive pairs of points.
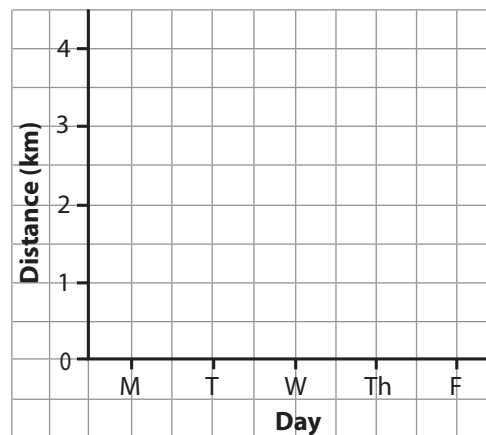- Give the graph a title.

Temperatures on Jake's Birthday
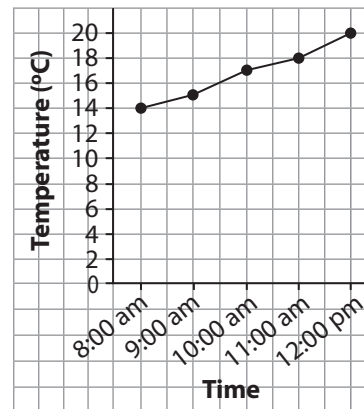
Try These

1. Eric jogged every day from Monday to Friday. He recorded the distances in a chart. Display these data in a graph.

Day	Distance (km)
Monday	1.0
Tuesday	1.5
Wednesday	2.0
Thursday	2.5
Friday	3.5

Distances Eric Jogged

1. Sammi measured the mass of her dog on the first of the month for 6 months.

Month	January	February	March	April	May	June
Mass (kg)	3	3.5	4	5	5.5	6

a) Draw a graph to display these data.

b) How did you choose the scale on the vertical axis?

_____

_____

_____
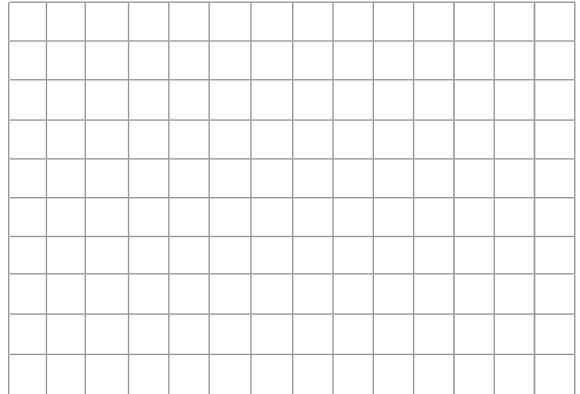
c) Did you join the points? Explain.

_____

d) What do you know from looking at the graph?

_____

_____

Stretch Your Thinking . . . .

Would you use a line graph or a series of points to display each set of data? Explain your choices.

a) The number of lunches sold in the school cafeteria every day for a month

_____

b) The volume of water in a bathtub as it fills
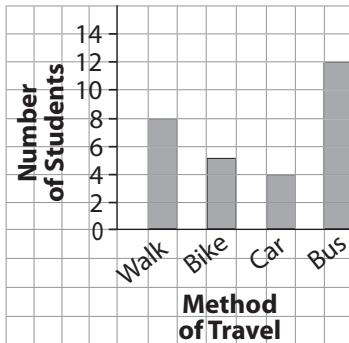
_____

Choosing an Appropriate Graph
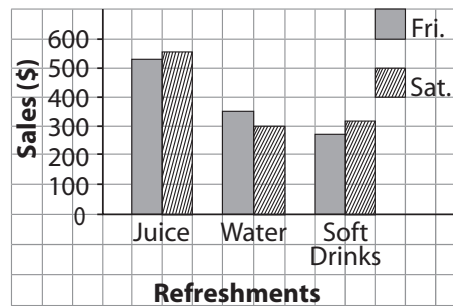
Quick Review

When you decide which type of graph to use, choose a graph that best represents the data.

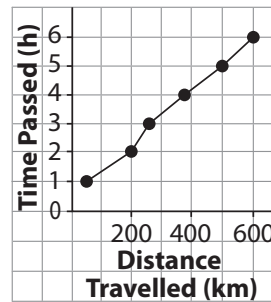**How We Get to School**

Bar Graph

Refreshment Sales

Double Bar Graph

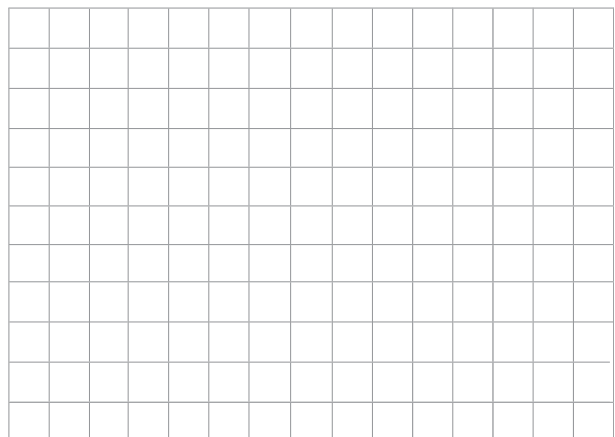| Favourite Kinds of TV Shows	
Comedy	📺📺📺📺
Sports	📺📺
Reality	📺📺📺📺📺
Drama	📺📺
	📺 = 10 votes

Pictograph

Our Car Trip

Line Graph

Try These

1. Draw a graph to display these data.

Our Favourite Seasons

Season	Number of Girls	Number of Boys
Spring	6	4
Summer	9	12
Fall	6	7
Winter	5	6

1. Draw a graph to display each set of data.

a) Students Who Wear Glasses

Grade	Number of Students
1	2
2	4
3	8
4	7
5	3
6	9

b) **Albert's Height**

Age (years)	Height (cm)
2	80
3	89
4	94
5	100
6	108
7	114
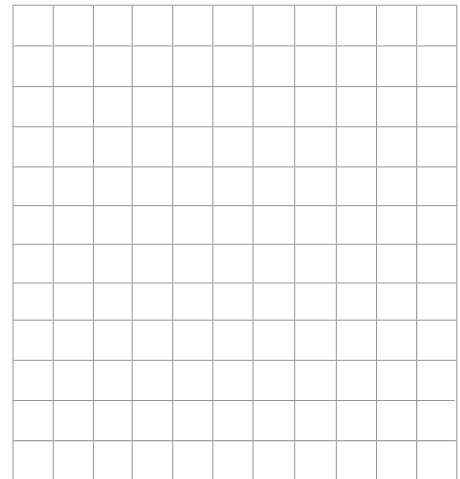
Stretch Your Thinking

How do you decide which type of graph to use to display data?

_____

_____

_____