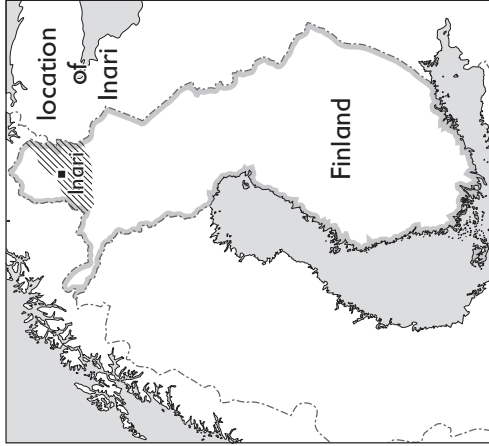
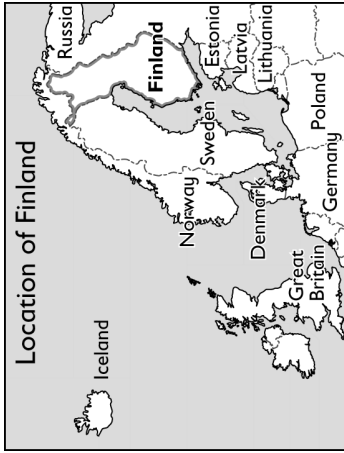




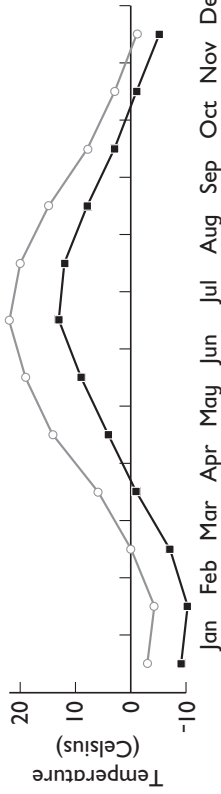
Around the World

Inari is an area in northern Finland.



The line graph below shows the

maximum and minimum average daily temperature in Inari.



Write a report detailing the seasonal differences in temperature in Inari. Describe in your report the average temperature for each season and how this compares with the yearly average.



Looking for Patterns

Using only these numbers, write down all the pairs of numbers that have a difference of 0.2.

-0.3
0
-0.5
0.2
-0.1
-0.4
0.1
-0.2

The Maths Herald

Name: _____

Date: _____



Let's Investigate

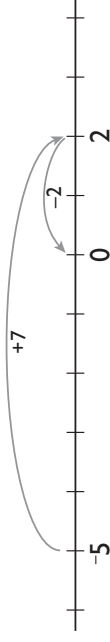
1
3
5
7
9
-1
-3
-5
-7
-9

2
4
6
8
10
-2
-4
-6
-8
-10

Choose any 3 numbers. Using some or all of these numbers, investigate how close to zero you can get. If you're able to make zero, record your calculation on a number line.

For example,

Choosing the numbers -2 -5 7 can give $-5 + 7 - 2$



What about choosing 4 numbers?



Focus on Science

For this experiment you need a bowl of ice and a thermometer.

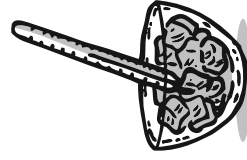
Keep doing this every 15 minutes for 5 hours.

Measure and record the temperature of the bowl of ice.

Record the results in a chart or graph.

After 15 minutes, once again

measure and record the temperature of the ice.





Let's Investigate

Look at this equation:

$$a + b = 12$$

If a and b stand for either a positive or negative whole number, investigate possible values for a and b .

What about for these equations?

$$a - b = 15$$

$$a + b = -8$$

$$a - b = -16$$



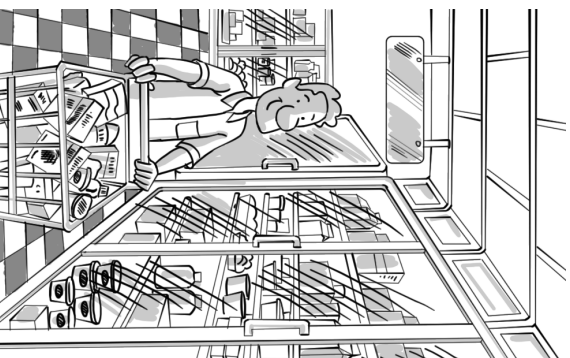
At Home

Investigate frozen foods at home or at the supermarket.

All frozen foods have a recommended temperature at which they should be kept frozen.

Is this temperature the same for all types of frozen goods, for example, vegetables, ice cream, meat and seafood?

Does the suggested recommended temperature vary depending on the recommended 'use by' date? What else can you find out about frozen foods?



Technology Today

Look at each of these calculations.

$$7 + -3 \quad -4 + 7 \quad -6 + -9$$

$$10 - -6 \quad -12 - 5 \quad -16 - -14$$

$$8 + -3 + 7 + -9 + -4$$

$$-7 + 4 - -8 + 11$$

$$-10 - -5 + 7 + -9$$

Design a poster that gives a set of instructions showing how to use a calculator to find sums and differences of combinations of positive and negative numbers. Be sure to provide examples.



Around the World

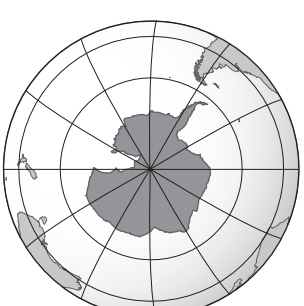
Antarctica is Earth's southernmost continent. It is, on average, the coldest, driest and windiest continent.

This table shows the average minimum and record minimum temperatures in degrees Celsius on Stonington Island, Antarctica.

	J	F	M	A	M	J	J	A	S	O	N	D
Average minimum ($^{\circ}\text{C}$)	-3	-4	-8	-10	-14	-17	-16	-19	-16	-13	-9	-3
Record minimum ($^{\circ}\text{C}$)	-12	-11	-35	-27	-36	-37	-36	-37	-39	-29	-20	-13

Draw a line graph showing both the average minimum and record minimum temperatures on Stonington Island, Antarctica.

Write a report about the average minimum and record minimum temperatures on Stonington Island.



Looking for Patterns

Fill in the missing numbers in each of these sequences:

$$37, \square, 13, 1, \square, -23, \square, \square, -59, -\square, -83$$

$$\square, \square, -25, \square, -9, -1, \square, 15, \square$$

$$150, \square, 10, \square, \square, -200, -270, \square$$

$$\square, -117, -80, \square, -6, \square, 68, \square$$

What is the rule for each sequence?

Make up 2 number sequences of your own involving negative numbers.

