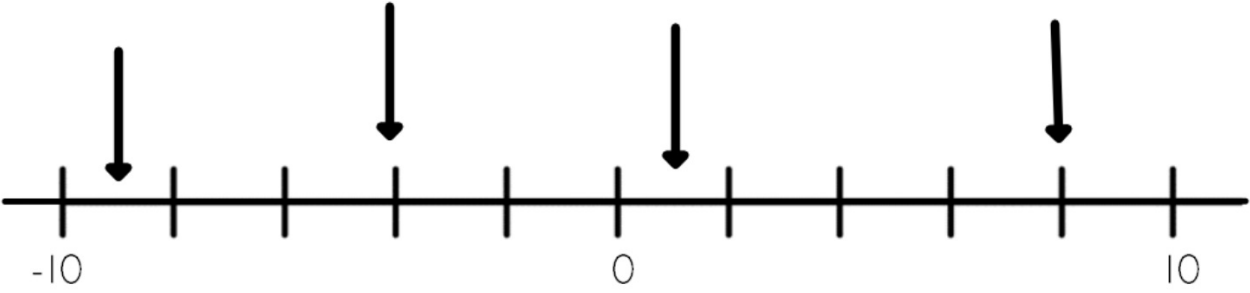
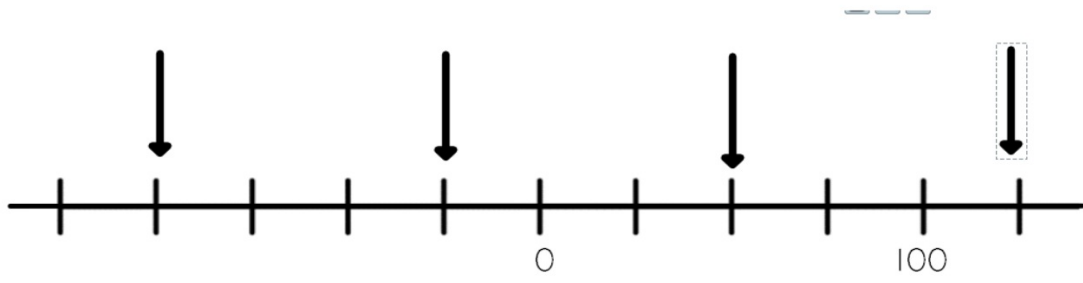


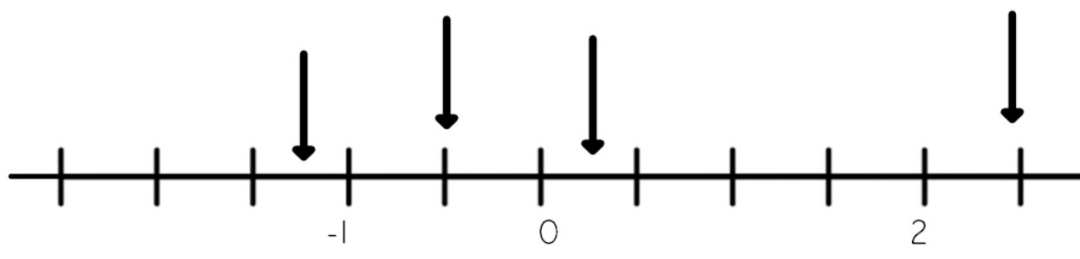
21.9.21

What is a negative number?

What do you know about negative numbers?







Put these numbers in order from smallest to largest:

-7   -17   1.7

-2.1   12   -9

Put these numbers in order

-4.82, 3.35, 5.12, -7.26

6.71, -6.71, 7.16, -1.76

Put these numbers in order

-27    5    -28    13    26    -5

-1    -0.5    0.5    0    1.5    -1.5

These were the temperatures in the following cities yesterday:

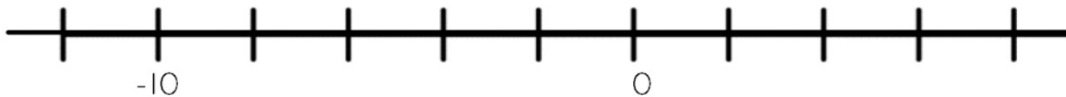
Helnsinki  $-5^{\circ}\text{C}$

Paris  $2^{\circ}\text{C}$

Moscow  $-12^{\circ}\text{C}$

Which city had the highest temperature?

Mark the temperatures on the number line.



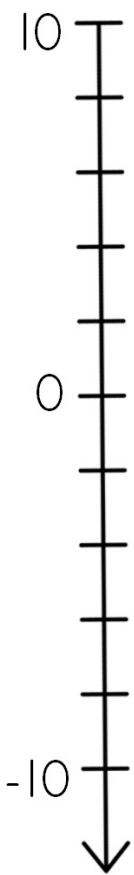
The temperature in each city increased by  $8^{\circ}\text{C}$ . What is the temperature now?

# Plenary

<https://nrich.maths.org/5865>

22.9.21

Can you calculate the interval?



Helsinki  $-5^{\circ}\text{C}$

Paris  $2^{\circ}\text{C}$

Moscow  $-12^{\circ}\text{C}$

What is the difference in temperature between Paris and Helsinki?

What is the difference in temperature between Paris and Moscow?

What is the difference in temperature between Helsinki and Moscow?

Here are the temperatures in four cities at midnight and at midday.

	Temperature	
City	At midnight	At midday
Paris	-4°C	-2°C
Oslo	-13°C	-7°C
Rome	3°C	10°C
Warsaw	-6°C	2°C

At midnight, how many degrees colder was Paris than Rome?

degrees

Which city was 6 degrees colder at midnight than at midday?

Plenary

Rank by difficulty

**What is the difference between:**

**-70 and 120**

**-70 and -20**

**-70 and 160**

23.9.21

How do you use formal methods to  
add?

What do you know about formal methods of adding?

What helps you?

What do you find tricky?

$$251 + 576 =$$

Model

| Calculation

$$3,851 + 4,162$$

Model

| Calculation

$$6,703 + 3,275 =$$

Model

| Calculation

Try these by drawing a model and completing the calculation alongside each other.

$$2,315 + 3,782 =$$

$$4,092 + 2,814 =$$

$$5,721 + 3,581 =$$

$$56,283 + 3671 =$$

Does it matter if you have a different number of digits in each number?

Model

| Calculation

$$\begin{array}{r} 56283 \\ + 3671 \\ \hline \end{array}$$

$$3,258 + 29071 =$$

## Task

Use digits 1, 2, 3, 4, 5, 6, 8, 9.

You can only use each digit once.

Make 2 4 digit numbers and add together.

- 1, What is the largest number you can make? Is there more than one solution?
- 2, What is the smallest number you can make? Is there more than one solution?
- 3, Write the answer as Roman numerals.
- 4, Show the calculations using place value counters.
- 5, Repeat using digits 0,1,2,3,4,5,6,7,8,9

## Plenary

What are the missing numbers?

	?	4	?	3	?
+	2	?	5	?	2
	7	8	5	2	9

24.9.21

Can you use formal methods to subtract 2 numbers?

What do you know about formal methods of subtraction?

What helps?

What do you find tricky?

$$4,679 - 3,513 =$$

Model

| Calculation

$$5,034 - 2,623 =$$

Model

| Calculation

$$4,263 - 2,105 =$$

Model

| Calculation

$$43,872 - 5,671 =$$

Model

| Calculation

Try these drawing your own model to help:

$$3,732 - 2,621 =$$

$$4,065 - 2,453 =$$

$$32,709 - 4,668 =$$

How would you show these on a bar model?

$$3,732 - 2,621 =$$

$$4,065 - 2,453 =$$

## Task

You are going to subtract 2 5 digit numbers. Each digit can only be used once in your subtraction.

- What is the largest number you can make? Is there more than 1 answer?
- What is the smallest number you can make? Is there more than 1 answer?

Convince me.

## Extension

- 1, Show each calculation using place value counters
- 2, Write your answer in Roman numerals

## Challenge

Can you write a column subtraction where the solution contains each digit from 1-5 once only. The digits can be in any order.

Is there more than 1 solution?

## Plenary

Rosie completes this subtraction incorrectly.

$$\begin{array}{r} 28701 \\ - 7621 \\ \hline 21180 \end{array}$$

Explain the mistake to Rosie and correct it for her.

