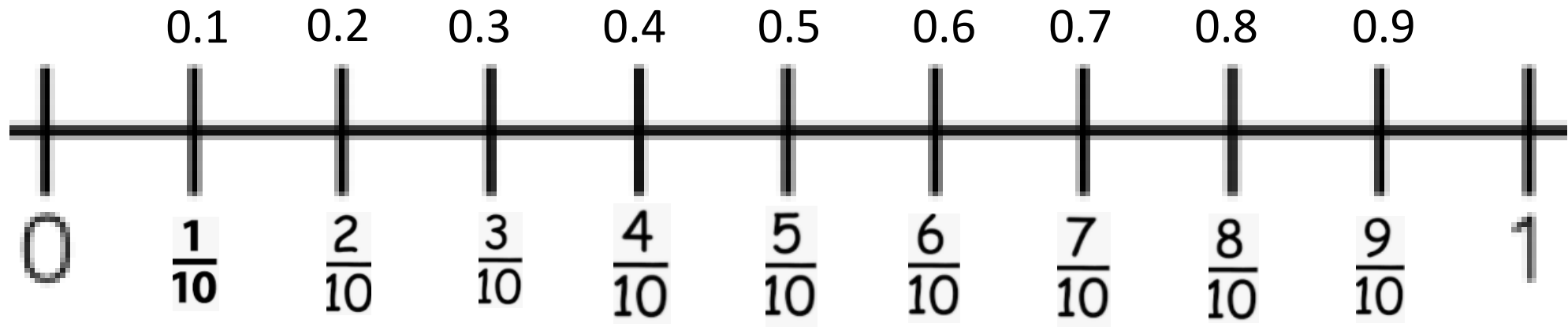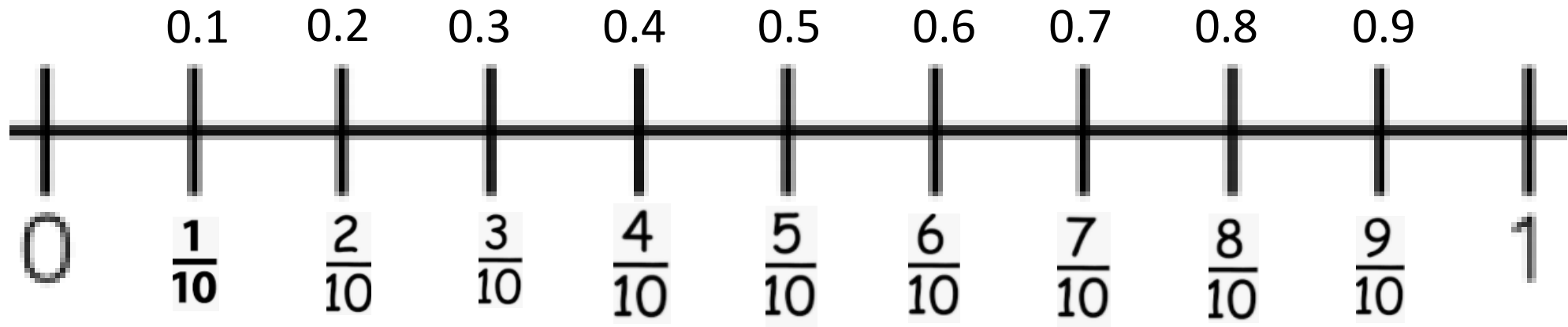# Year 4 Maths, 25/2/21

RECALL

How many equal parts are between 0 and 1?

What are the intervals between each number?

How many tenths are in one whole?

RECALL answers

How many equal parts are between 0 and 1?

What are the intervals between each number?

How many tenths are in one whole?

This number line shows ten equal parts between 0 and 1.

The intervals between each number are tenths.

There are ten tenths in one whole.

LO: I can show tenths on a number line

- SOME WILL EVEN label a number line with no marked divisions
- SOME will label decimal number lines with different increments
- MOST will label decimal number lines with missing numbers
- ALL will identify tenths on a number line

GUIDED PRACTICE

Today we are going to investigate number lines that are labelled with tenths. Can you work out what decimal numbers the arrows are pointing at?

0   1

3   4

7.1   7.5
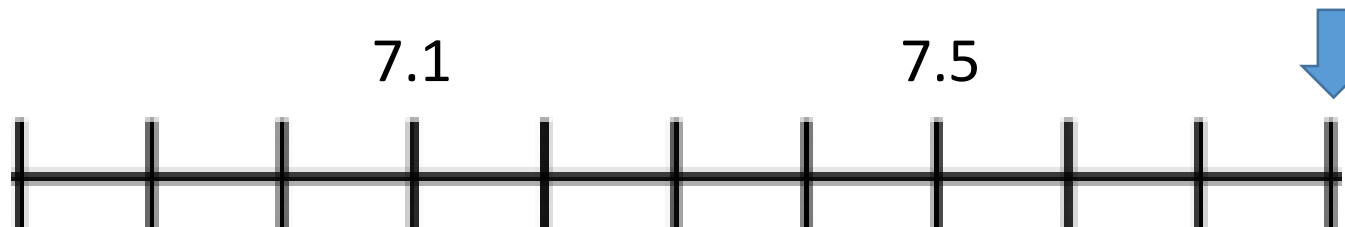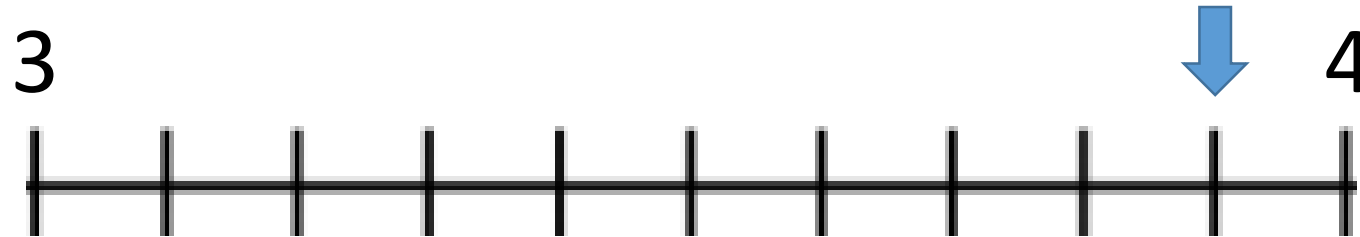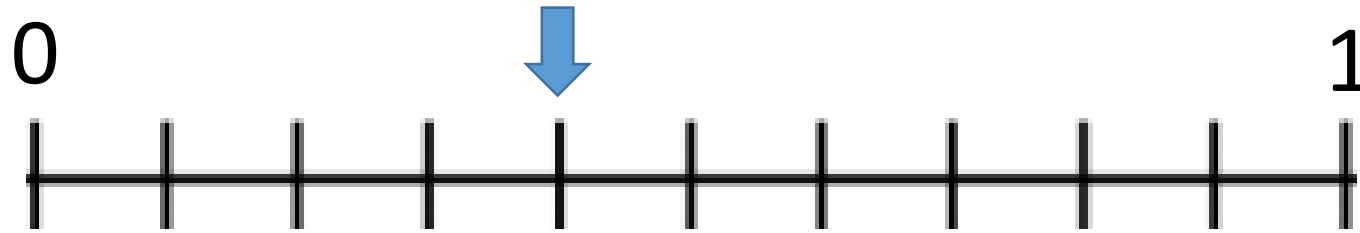
GUIDED PRACTICE answers

0.4

0   1

3.9

3   4
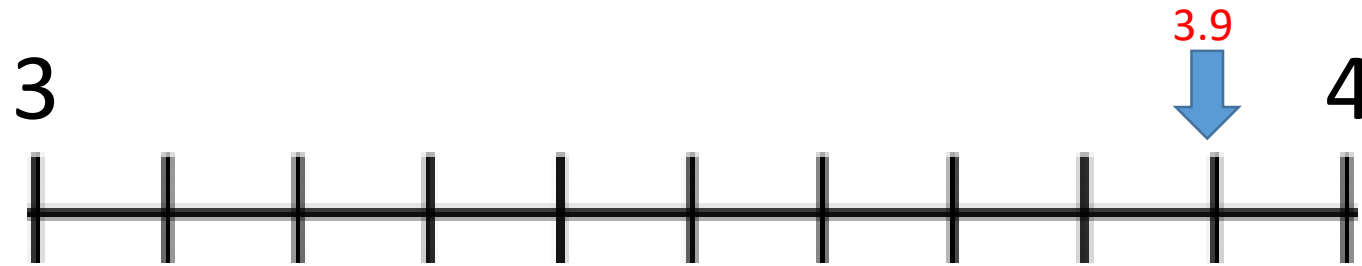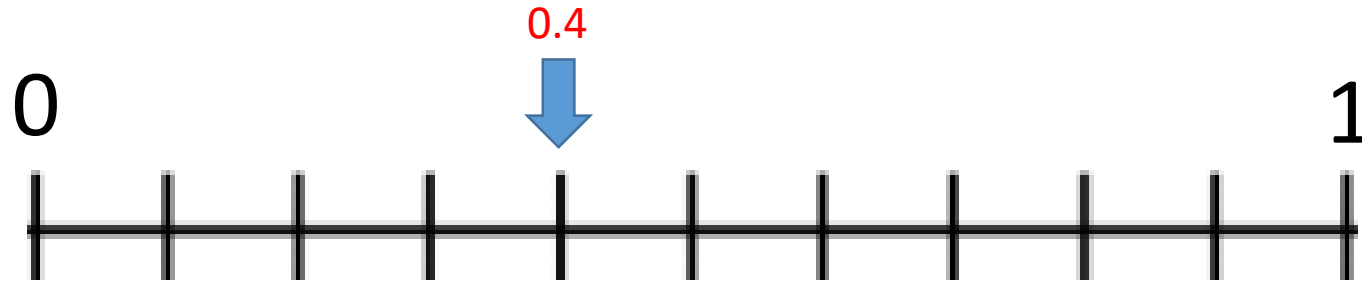
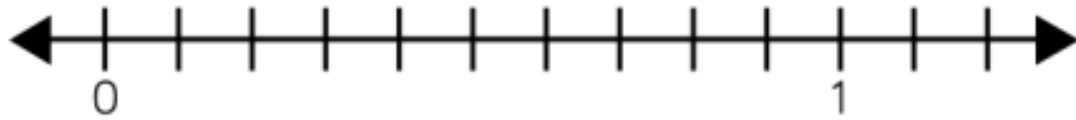This one was more difficult because the number line doesn't start at zero.

7.8

7.1   7.5

This one was more difficult because there are no whole numbers labelled on the number line.
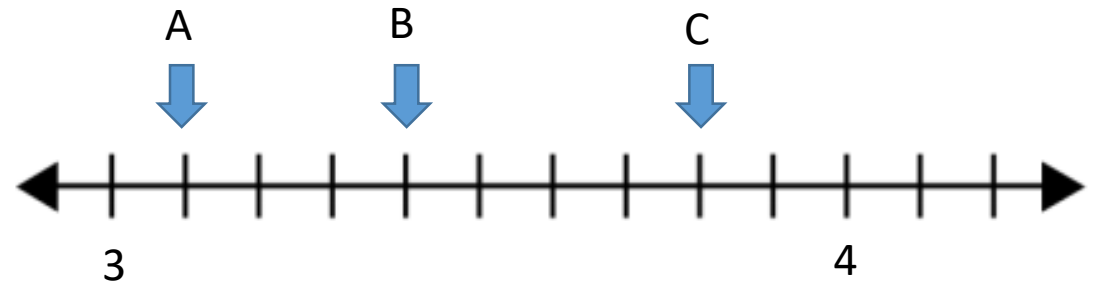
INTELLIGENT PRACTICE
answers

One chilli

Place the decimals on the number line.

| 0.5 | 0.9 | 1.1 |

0   1

What numbers are the arrows pointing to?

A   B   C

3   4

Two chillies

Place the decimals on the number line.

| 5 | 5.8 | 6.2 |

5.1   5.5   6

What numbers are the arrows pointing to?

7.7   8.3   8.6

INTELLIGENT PRACTICE

One chilli

Place the decimals on the number line.

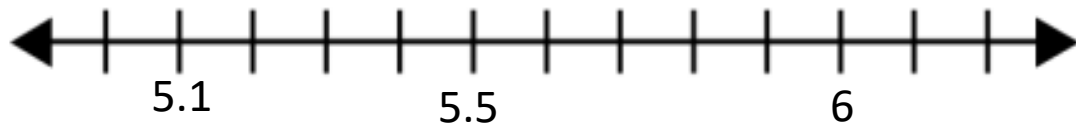0.5   0.9   1.1

What numbers are the arrows pointing to?

3.1   3.4   3.8

Two chillies
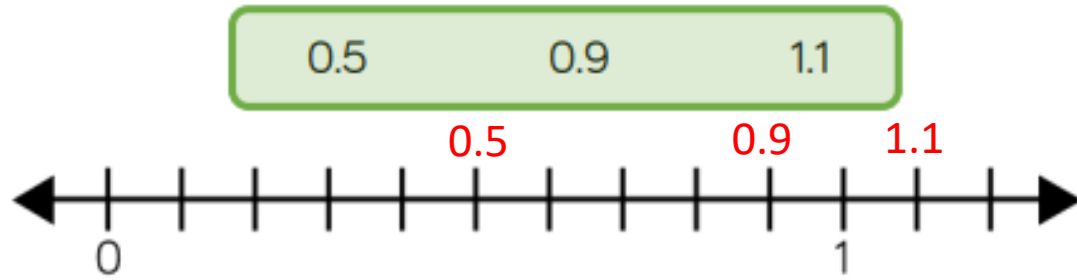
Place the decimals on the number line.

5   5.8   6.2
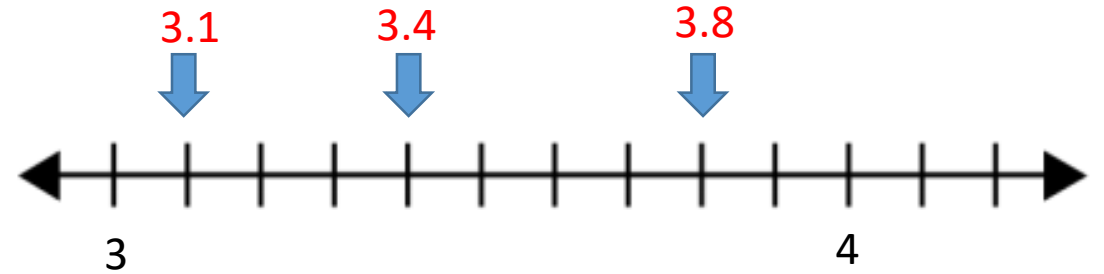

What numbers are the arrows pointing to?

7.4   7.9   8.2

Three chillies

Complete the number lines.

4 4.2 4.4   5 5.2   5.8

Look carefully at the difference between each interval on the number line. These number lines don't go up one tenth at a time!

5.9   6.5   7.4 7.7

How long is the ribbon?

0   1

The ribbon is ___ metres long.

Did you notice that the ribbon is not placed at zero on the number line?
Give your answer as a decimal number.
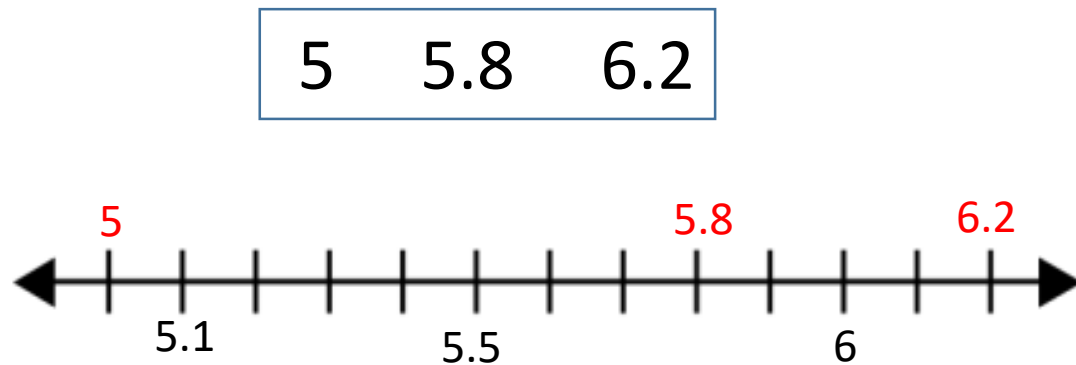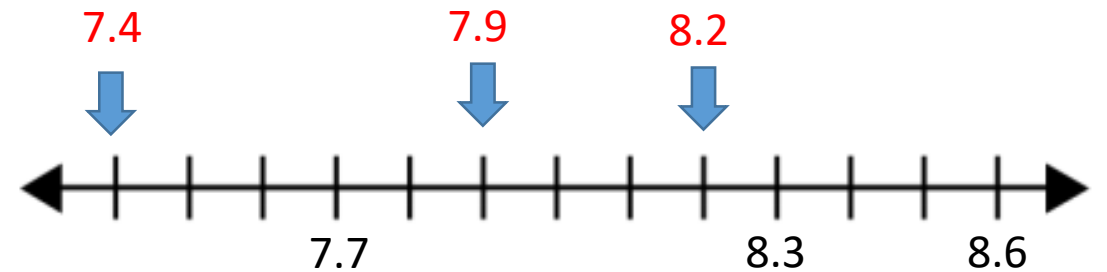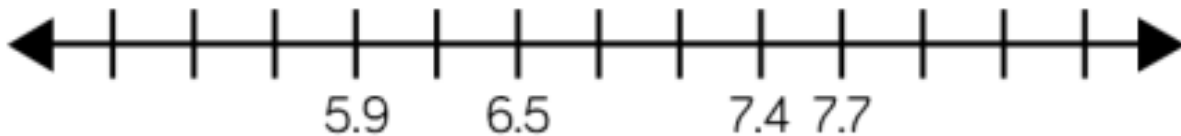
INTELLIGENT PRACTICE answers

Three chillies

Complete the number lines.
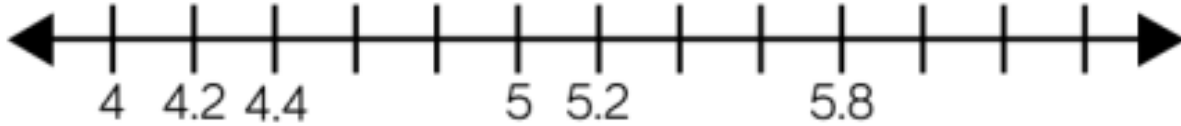
Look carefully at the difference between each interval on the number line. These number lines don't go up one tenth at a time!
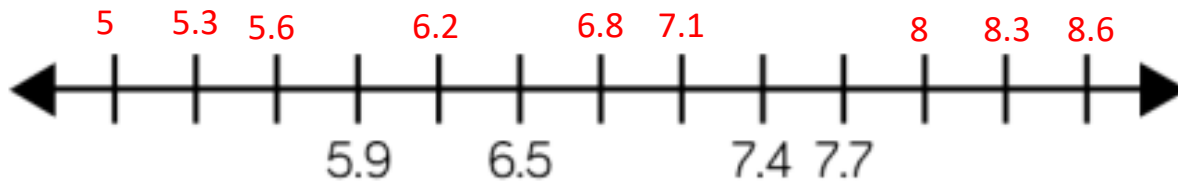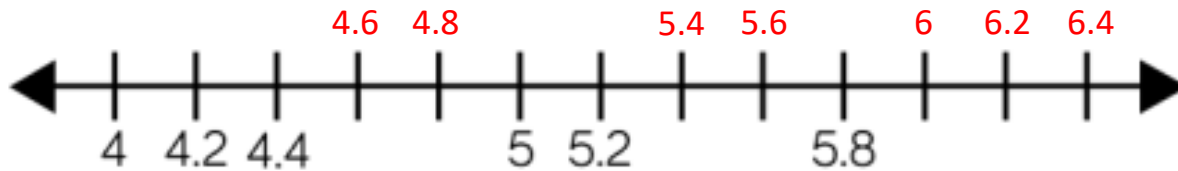

How long is the ribbon?

The ribbon is 0.8 metres long. (This is the same as 80 centimetres or 8000 millimetres.)

Did you notice that the ribbon is not placed at zero on the number line?
Give your answer as a decimal number.

DIVE DEEPER

What could the start and end numbers on the number line be?

6.4
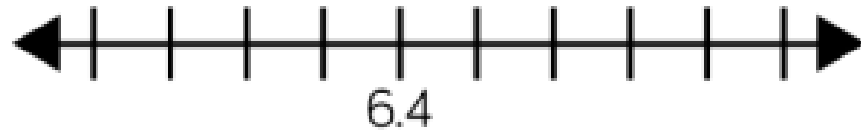
Explain your reasons.

Can you give more than one answer?

Place the decimals on the number line.

2

4

2.7   2.3   1.9   2.5   2.9   3.2

Which order did you place your numbers on the number line?

You will need to use your estimation skills to accurately judge where each of the decimal numbers should go. Which number in the list would be easiest to start with?

DIVE DEEPER answers

What could the start and end numbers on the number line be?
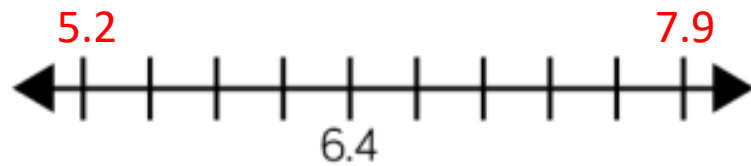
5.2 ⟷+++++++++⟶ **7.9**
          6.4

Explain your reasons.

In the example answer above, the number line is going up in steps of 0.3

The start and end numbers could be 6 and 6.9 respectively, or 5.6 and 7.4

Children can find different start and end numbers by adjusting the increments that the number line is going up in.

Place the decimals on the number line.
1.9   2.3   2.5 2.7 2.9   3.2

⟷+ ↓ ↓ ↓ ↓ ↓ +⟶
2   **4**

| 2.7   2.3   1.9   2.5   2.9   3.2 |

Which order did you place your numbers on the number line?

I started by thinking about where 3 would be. This helped me to place 2.5

Then I could place the other numbers.

Some children will draw on 20 intervals first. This method will allow them to identify where the numbers are placed but can be considered inefficient. Encourage children to think about the numbers first and consider which numbers are easiest to place e.g. 2.5 is probably easiest, followed by 1.9 or 2.9 etc.

Self assessment: how did you do?

- SOME WILL EVEN label a number line with no marked divisions

Did you get the dive deeper questions right?

- SOME will label decimal number lines with different increments

Did you get the chilli three questions right?

- MOST will label decimal number lines with missing numbers

Did you get the chilli one questions right?

- ALL will identify tenths on a number line

Did you get the chilli one questions right?