Name: Friday 5th
Date: Thurs 4th March

Dividing by 10 1

1 Complete the following calculations. Use the place value chart to help you.

a)

O	•	Tth
○○	•	

O	•	Tth
	•	○○○○○ ○○○○○ ○○○○○ ○○○○○

2 ones = [20] tenths

[20] tenths ÷ 10 = [2] tenths

2 ÷ 10 = [0] · [2]

b)

O	•	Tth
○○○○○ ○○○	•	

8 ones = [80] tenths

[80] tenths ÷ 10 = [8] tenths

So 8 ÷ 10 = [0] · [8]

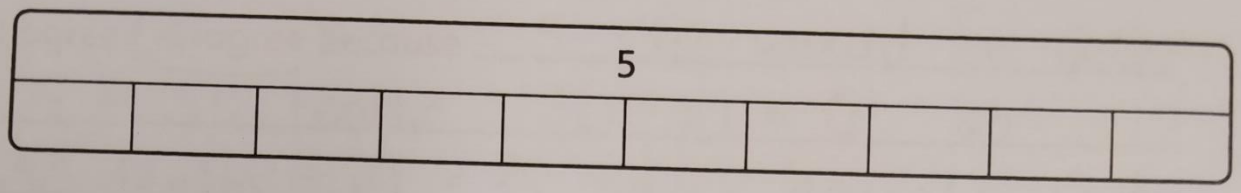
7 = 70 tenths
70 ÷ 10 = 7 tenths
0.7

c)

O	•	Tth
○○○○○ ○○	•	

7 ÷ 10 = [0] · [7]

2 Complete the following bar model and record the calculation that it represents.



5 ÷ 10 = 0·5

3 Max says, 'I divided by 10 is equal to 10 tenths.'

O	•	Tth
1	•	

O	•	Tth
	•	$\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$

Explain Max's mistake and give the correct answer.

1 is equal to $\frac{10}{10}$ so 1 divided by 10 is equal to $\frac{1}{10}$ or 0·1.

4 Complete the following calculations.

a) 6 ÷ 10 = 0·6

b) 8 ÷ 10 = 0·8

c) 1 ÷ 10 = 0·1

d) 0 ÷ 10 = 0

e) 4 ÷ 10 = 0·4

f) 0·5 = 5 ÷ 10

g) 0·3 = 3 ÷ 10

h) 10 ÷ 10 = 1

5 Do you agree or disagree with the following calculation?

$5 \div 10 = 2$

I agree / ~~disagree~~ because 5 ÷ 10 would be 0·5. 5 = 50 tenths 50 ÷ 10 = 5 so 50 tenths ÷ 10 = $\frac{5}{10}$ which equals 0·5.

6 What patterns can you spot in the following calculations?

CHALLENGE

$1 \div 10 = 0{\cdot}1$

$2 \div 10 = 0{\cdot}2$

$3 \div 10 = 0{\cdot}3$

When a single digit number is divided by 10, that number appears in the tenths column.

I notice that (Oops - Sorry, that answer should be here!)

Reflect

Explain how to divide a 1-digit number by 10.

First work out how many tenths in that number and divide it by 10.

e.g. $8 \div 10 = \frac{80}{10} \div 10 = \frac{8}{10}$