## Diving into Mastery



## Aim

- Find the effect of dividing a one- or two-digit number by 10 and 100 , identifying the value of the digits in the answer as ones, tenths and hundredths.

Complete the place value grid to solve the calculation.


$$
5 \div 10=0.5
$$

When dividing by 10 , we move the counters one place to the

## right

## Divide 1 Digit by 10

Move the digit on the place value grid to answer the calculation.

| Ones | tenths |
| :---: | :---: |
| 3 |  |

## Divide 1 Digit by 10

Solve these calculations.

$$
\begin{array}{ll}
7 \div 10=0.7 & 0.9=9 \div 10 \\
8 \div 10=0.8 & 0.1=1 \div 10
\end{array}
$$

Explain and correct the mistake that Anton has made.
Ones $\cdot$ tenths

$$
4 \div 10=4
$$

Anton has forgotten to move the 4 counters in the ones column into the tenths column.

If he moved the counters correctly in this way, it would show that 4 has been divided by 10 to make 0.4.

Mario's number is 10 times smaller than Ivy's number.
0.10 .10 .10 .1

(0.1)
True or false?


Explain your answer.

False. Mario's image represents 0.8 and Ivy's image represents the number 7.
0.8 is not 10 times smaller than 7.

The place value grid shows the answer to the calculation '9 shared equally between 10'.
Ones $\quad$ tenths

Do you agree or disagree? Why?

Agree. This place value grid represents the number 0.9. When you divide 9 by 10, the 9 ones counters move 1 column to the right into the tenths column. This makes 0.9 so $9 \div 10=0.9$.

Complete the table.

| Type of Tree | Average Growth <br> in 10 Years | Average Growth <br> in 1 Year |
| :--- | :---: | :---: |
| oak | 3 m | 0.3 m |
| chestnut | 5 m | 0.5 m |
| pycamore |  |  |

