

Autumn term
Spring term
Summer term

Year 5

Apply scaling by 10, 100, $\frac{1}{10}$ or $\frac{1}{100}$ to known facts.

Multiples of 4	NOT multiples of 4
92 ✓	91 ✓
82 ✗	80 ✗
100 ✓	106 ✓
602 ✓	799 ✓
43 ✗	74 ✓
987,300 ✓	859,433 ✓

$$38 \div 3 = 12 \text{ r } 2$$

$$38 \div 3 = \frac{38}{3} = 12\frac{2}{3}$$

$$9 \times 12 = 108$$

$$90 \times 12 = 1080$$

$$1080 \div 12 = 90$$

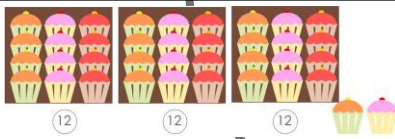
$$1080 \div 90 = 12$$

Understand and use divisibility rules to include sorting and classifying improper fractions into those that give a whole number quotient and those that do not.

Understand how the product changes when one of the factors increases or decreases by 1.

Explore contexts where you can use either a multiplication and addition equation or a division equation with a remainder.

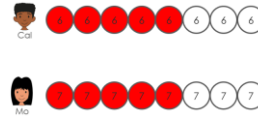
Explore multiplicative composition.



$$38 = 3 \times 12 + 2$$

$$38 \div 3 = 12 \text{ r } 2$$

$$38 \div 12 = 3 \text{ r } 2$$



A $14 \times 3 = 2 \times (7 \times 3) = \square$

B $14 \times 3 = (2 \times 3) \times 7 = \square$

Explore a constant (functional) relationship using a ratio table.

The number of legs is ALWAYS 8 times the number of spiders.



Number of spiders	1	$\times 8$
Number of legs	8	

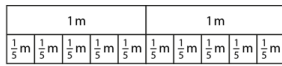
Find a unit fraction of a number and connect this to partitive and quotitive division.

Connecting multiplying by $\frac{1}{10}$ to dividing by 10 and multiplying by $\frac{1}{100}$ to dividing by 100.



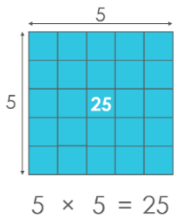
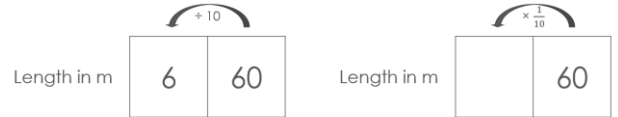
$$120\text{cm} \times \frac{1}{2} = \square$$

$$120\text{cm} \div 2 = \square$$



$$5 \times \frac{1}{5} = \frac{5}{5} = 1$$

$$10 \times \frac{1}{5} = \frac{10}{5} = 2$$



53cm



When a number is multiplied by 1 it stays the same.

Practise facts: where the factors are the same, resulting in a product that is a square number; where 1 is a factor; where 10 is a factor.

Number of vases	1	10	$\times 10$
Number of flowers	5	50	$\times 10$

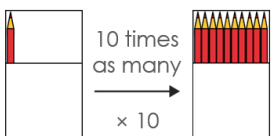


80kg is 10 times 8kg.

Explore a scalar relationship using a ratio table and when multiplying by 10 or 100.

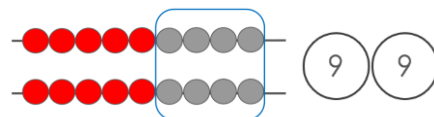
Make connections between multiplication and division contexts and equations.

Recap when 2 is a factor.



10 times as many
 $\times 10$

To multiply a whole number by 10, place a zero after the final digit of that number.



$$2 \times 9 = 18$$

$$9 \times 2 = 18$$



The value of the product in a multiplication equation becomes the value of the dividend in the corresponding division equation.