

Maths - Year 5

Calculating 9: Division with remainders

Key Vocabulary

Mathematical Skills

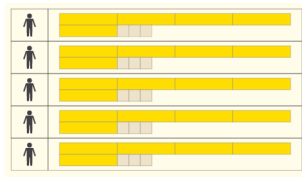
Factor	A number that divides into another number exactly.
Remainder	What is left over when one number is divided by another.
Equivalent fraction	Fractions of equal value, represented in different ways.
Improper fractions	A fraction where the numerator is larger than the denominator.
Mixed number	A number written as a whole number and a fraction e.g. $2\frac{3}{4}$.
Divisor	The number you are dividing by.
Quotient	The result of dividing one number by another.

- Determine the most appropriate way for a remainder to be expressed.
- Complete a dividing calculation and express the remainder as a common fraction.
- Complete a dividing calculation and express the remainder as a decimal.
- Understand that a fraction can be expressed as a dividing calculation.

Mathematical Methods

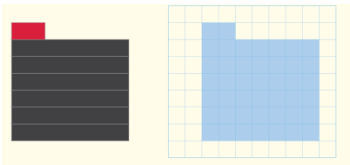
- Understanding remainders e.g. There are 44 apples to be packed in bags of 6. How many bags can be filled. $44 \div 6 = 7$ with 2 apples remaining.

- Dividing using fractions as remainders e.g. 28 breadsticks divided among 5 people.



$$28 \div 5 = 5\frac{3}{5}$$

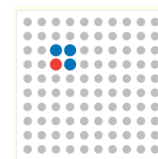
- Linking remainders to arrays e.g. 44 grapes put into snack pots that contain 7 grapes.



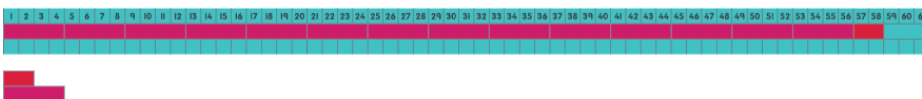
$$44 \div 7 = 6\frac{2}{7}$$

- Expressing remainders as fractions in short division e.g. $125 \div 4 = 31\frac{1}{4}$

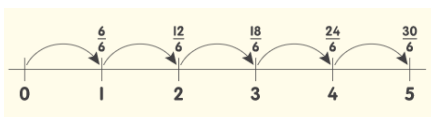
$$\begin{array}{r} 31 \text{ r } 1 \\ 4 \overline{) 125} \\ \underline{12} \\ 5 \end{array}$$



- Using equivalent fractions to express a remainder as a decimal e.g. $58 \div 4 = 14\frac{1}{2}$

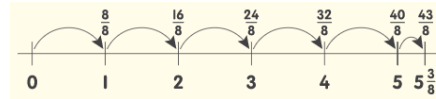
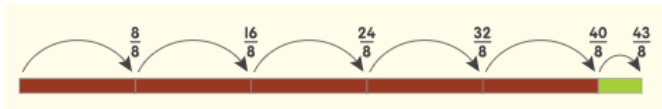


- Linking improper fractions to division with no remainders (converting improper fractions to whole numbers) e.g. converting $\frac{30}{6}$ to a whole number.



$\frac{6}{6}$	$\frac{12}{6}$	$\frac{18}{6}$
$\frac{24}{6}$	$\frac{30}{6}$	

- Linking improper fractions to division with remainders - converting improper fractions to mixed numbers e.g. converting $\frac{48}{8}$ to a mixed number = $5\frac{3}{8}$.



Can you..?

- Solve $318 \div 5$ and turn the remainder into a fraction.
- How many egg boxes of 6 could you fill if you had 42 eggs?
- Convert $\frac{24}{6}$ to a whole number.
- Convert $\frac{89}{7}$ to a mixed number.