



# Maths

## Fractions

# Adding Fraction Multiples



# Aim

- I can add fractions with denominators that are multiples of the same number.

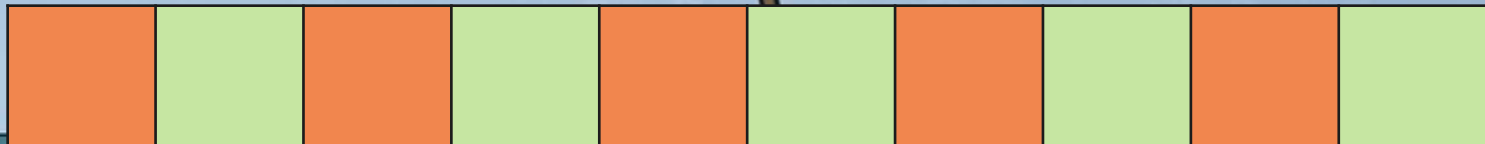
# Success Criteria

- I can add fractions with the same denominator.
- I can convert between improper and mixed number fractions.
- I can use multiplication to change a fraction into an equivalent.
- I can add fractions with denominators that are multiples of the same number.

# Improper and Mixed Number Fraction Count



Count forwards along the fraction counting stick in mixed numbers.



Count backwards along the fraction counting stick in improper fractions.

# Improper and Mixed Number Fraction Count



Count forwards along the fraction counting stick in mixed numbers.

2

$2\frac{1}{4}$

$2\frac{2}{4}$

$2\frac{3}{4}$

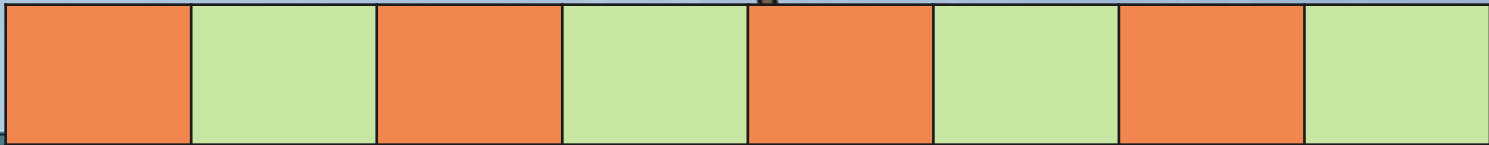
3

$3\frac{1}{4}$

$3\frac{2}{4}$

$3\frac{3}{4}$

4



$\frac{8}{4}$

$\frac{9}{4}$

$\frac{10}{4}$

$\frac{11}{4}$

$\frac{12}{4}$

$\frac{13}{4}$

$\frac{14}{4}$

$\frac{15}{4}$

$\frac{16}{4}$

Count backwards along the fraction counting stick in improper fractions.

# Improper and Mixed Number Fraction Count



Count forwards along the fraction counting stick in mixed numbers.

3

$3\frac{1}{3}$

$3\frac{2}{3}$

4

$4\frac{1}{3}$

$4\frac{2}{3}$

5

$\frac{9}{3}$

$\frac{10}{3}$

$\frac{11}{3}$

$\frac{12}{3}$

$\frac{13}{3}$

$\frac{14}{3}$

$\frac{15}{3}$

Count backwards along the fraction counting stick in improper fractions.

# Same Denominators



In this fraction addition, both the fractions have the **same denominator**.

A diagram illustrating the addition of two fractions. It features three fish swimming in a blue ocean. The first fish is positioned next to a vertical orange box containing the fraction  $\frac{3}{5}$ . To its right is a yellow box with a plus sign (+). The second fish is next to another vertical orange box containing the fraction  $\frac{1}{5}$ . To its right is a yellow box with an equals sign (=). The third fish is next to a final vertical orange box containing the fraction  $\frac{4}{5}$ .
$$\frac{3}{5} + \frac{1}{5} = \frac{4}{5}$$

To solve the calculation, the **denominator stays the same**, and the **numerators are added together**.

# Same Denominators



In this fraction addition, both the fractions have the **same denominator**.

This is the same answer written as a mixed number.

$$\frac{5}{3} + \frac{6}{3} = \frac{11}{3} = 3\frac{2}{3}$$



This answer is an improper fraction. The denominator tells us the whole is made of three parts.



# Same Denominators



In this fraction addition, both the fractions have the **same denominator**.

This answer is an improper fraction. Change it to a mixed number.

This answer can be simplified.

$$\frac{11}{4} + \frac{3}{4} = \frac{14}{4} = 3\frac{1}{2}$$

This is a mixed number. Change it to an improper fraction before calculating.



# Denominator Multiples



In this fraction addition, both the fractions have **different denominators** which are multiples of the same number.

$$\begin{array}{l} \times 2 = 4 \\ \times 2 = 6 \end{array} \quad \frac{2}{3} + \frac{1}{6}$$

To solve the calculation, we use **multiplication** to change the fraction with the lowest denominator into an **equivalent fraction** with the same denominator as the other fraction.

**Remember to do the same multiplication to the numerator.**

# Denominator Multiples



Now we have a calculation where both the denominators are the same number.

A background illustration of a beach scene. In the foreground, there is a clam, a nautilus shell, and a seashell. The background shows a sandy beach, green trees, and a blue sky with white clouds.
$$\begin{array}{c} \times 2 = 4 \\ \hline 2 \\ \hline 3 \end{array} + \begin{array}{c} 1 \\ \hline 6 \end{array} = \begin{array}{c} 4 \\ \hline 6 \end{array} + \begin{array}{c} 1 \\ \hline 6 \end{array} = \begin{array}{c} 5 \\ \hline 6$$

$\times 2 = 6$

To solve the calculation, the **denominator stays the same**, and the **numerators are added together**.

# Denominator Multiples



Let's try this with another calculation where the fractions have different denominators which are multiples of the same number.

$$\times 3 = 9$$

$$\frac{3}{4} + \frac{7}{12} = \frac{9}{12} + \frac{7}{12} = \frac{16}{12} = 1\frac{4}{12}$$

$$\times 3 = 12$$

$$= 1\frac{1}{3}$$

# Denominator Multiples



Let's try this with another calculation where the fractions have different denominators which are multiples of the same number.

$$\times 5 = 25$$

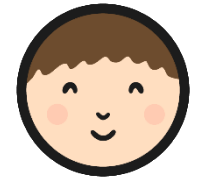


$$\frac{5}{2} + \frac{3}{10} = \frac{25}{10} + \frac{3}{10} = \frac{28}{10} = 2\frac{4}{5}$$
A background illustration of a beach scene with waves, sand, and several seashells scattered on the shore.

$$\times 5 = 10$$



# Adding Fractions Match-Up



## Adding Fractions Match Up

I can add fractions with denominators that are multiples of the same number.

Put the correct postcard in the box to the correct postcard by solving the addition calculations. Use different postcards for each pair.


$2\frac{5}{12}$	$1\frac{3}{10}$	$2\frac{7}{8}$
$2\frac{1}{12}$	$2\frac{6}{15}$	$2\frac{1}{8}$



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## ns Match Up

at are multiples of the same number.

olving the addition calculations. Use different the postcards as mixed numbers, simplifying


$\frac{47}{18}$	$\frac{47}{18}$
$\frac{85}{35}$	$\frac{40}{24}$

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## ns Match Up

at are multiples of the same number.

olving the addition calculations. Use different the postcards as mixed numbers.


$3\frac{7}{10} = 3\frac{3}{10}$	$3\frac{9}{8} = 4\frac{7}{8}$
$3\frac{7}{15} = 3\frac{12}{15}$	$4\frac{1}{8} = 5\frac{1}{8}$

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# Bingo



	$\frac{9}{8}$ or $1\frac{1}{8}$	$\frac{23}{20}$ or $1\frac{3}{20}$
$\frac{3}{2}$ or $1\frac{1}{4}$	$\frac{13}{12}$ or $1\frac{1}{12}$	$\frac{13}{10}$ or $1\frac{3}{10}$

$1\frac{1}{12}$
$1\frac{1}{16}$

$1\frac{3}{20}$
$1\frac{3}{10}$

# Aim



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# Success Criteria

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