

# Adding Fractions to Total One

twinkl

# Aim

- I can add fractions with different denominators that are multiples of the same number to total one.

# Success Criteria

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

# Size It Up



Compare the following fractions.



$$\frac{5}{8}$$



$$\frac{1}{2}$$





# Size It Up



Compare the following fractions.



$$\frac{4}{10}$$



$$\frac{1}{2}$$





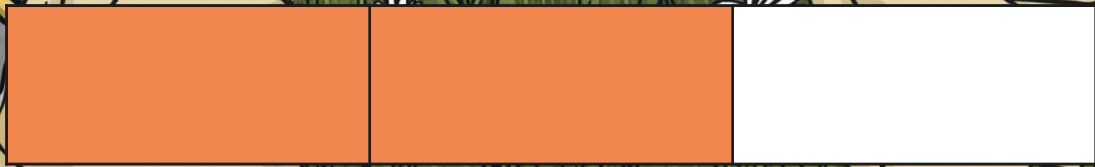
# Size It Up



Compare the following fractions.



$$\frac{2}{6} < \frac{2}{3}$$





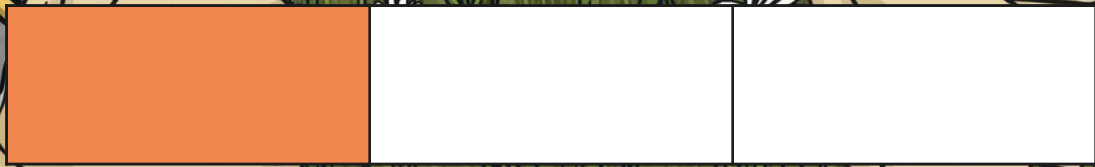
# Size It Up



Compare the following fractions.



$$\frac{4}{6} > \frac{1}{3}$$

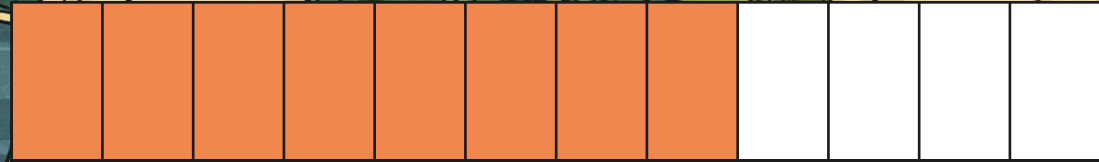




# Size It Up



Compare the following fractions.



$$\frac{8}{12}$$



$$\frac{3}{4}$$





# Size It Up



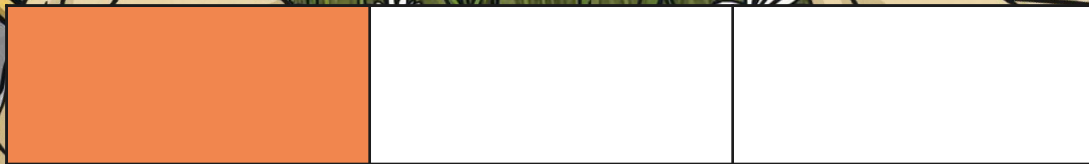
Compare the following fractions.



$$\frac{5}{12}$$



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





# Denominator Multiples



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

$$\times 3 = 6$$



$$\frac{2}{3}$$

+

$$\frac{5}{9}$$

$$\times 3 = 9$$

Remember to do the same multiplication to the numerator.

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.



# Denominator Multiples



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

$$\times 3 = 6$$

$$\frac{2}{3}$$

+

$$\frac{5}{9}$$

=

$$\frac{6}{9}$$

+

$$\frac{5}{9}$$

=

$$\frac{11}{9}$$

=

$$1\frac{2}{9}$$

$$\times 3 = 9$$

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





# Denominator Multiples



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

$$\frac{7}{15} + \frac{2}{5} = \frac{7}{15} + \frac{6}{15} = \frac{13}{15}$$

$\times 3 = 6$

$\times 3 = 15$

# Denominator Multiples



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

$$\times 3 = 9$$

$$\frac{3}{4}$$

+

$$\frac{5}{12}$$

=

$$\frac{9}{12}$$

+

$$\frac{5}{12}$$

=

$$\frac{14}{12}$$

=

$$1\frac{2}{12}$$

$$\times 3 = 12$$

=

$$1\frac{1}{6}$$





# Target One



Work with a partner to identify which of these fraction pairs add together to make one whole.

$$\frac{1}{2} + \frac{6}{10}$$

=

$$\frac{5}{10} + \frac{6}{10}$$

=

$$\frac{11}{10}$$

=

$$1\frac{1}{10}$$



$$\frac{3}{4} + \frac{2}{8}$$

=

$$\frac{6}{8} + \frac{2}{8}$$

=

$$\frac{8}{8}$$

=

$$1$$



$$\frac{7}{12} + \frac{1}{4}$$

=

$$\frac{7}{12} + \frac{3}{12}$$

=

$$\frac{10}{12}$$

=

$$\frac{10}{12}$$



$$\frac{3}{6} + \frac{1}{2}$$

=

$$\frac{3}{6} + \frac{3}{6}$$

=

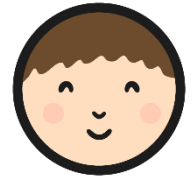
$$\frac{6}{6}$$

=

$$1$$




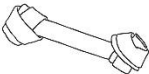
# Fraction Pairs Totalling One Whole



## Fraction Pairs Totalling One Whole

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

Find the path through the maze to help the dog find his bone by shading or colouring the addition pairs that total one whole.

	$\frac{1}{4} + \frac{6}{8}$	$\frac{5}{10} + \frac{1}{2}$	$\frac{1}{4} + \frac{10}{12}$	$\frac{9}{15} + \frac{1}{5}$	$\frac{16}{20} + \frac{2}{5}$	$\frac{2}{25} + \frac{4}{5}$		
	$\frac{2}{10} + \frac{3}{5}$	$\frac{1}{4} + \frac{9}{12}$	$\frac{6}{10} + \frac{3}{5}$	$\frac{3}{9} + \frac{2}{3}$	$\frac{12}{15} + \frac{1}{5}$	$\frac{12}{20} + \frac{2}{5}$		
	$\frac{3}{4} + \frac{4}{8}$	$\frac{4}{10} + \frac{3}{5}$	$\frac{3}{4} + \frac{2}{8}$	$\frac{4}{6} + \frac{1}{3}$	$\frac{6}{9} + \frac{2}{3}$	$\frac{5}{25} + \frac{4}{5}$		
$\frac{4}{10} + \frac{1}{2}$	$\frac{12}{36} + \frac{7}{12}$	$\frac{28}{36} + \frac{4}{9}$	$\frac{8}{10} + \frac{3}{5}$	$\frac{3}{4} + \frac{1}{8}$	$\frac{5}{6} + \frac{1}{3}$	$\frac{1}{9} + \frac{2}{3}$		
$\frac{18}{36} + \frac{7}{12}$	$\frac{14}{24} + \frac{5}{12}$	$\frac{15}{36} + \frac{7}{12}$				$\frac{4}{36} + \frac{8}{9}$	$\frac{12}{14} + \frac{1}{7}$	$\frac{3}{18} + \frac{5}{6}$
$\frac{12}{24} + \frac{5}{12}$	$\frac{12}{40} + \frac{7}{10}$	$\frac{16}{24} + \frac{5}{12}$				$\frac{15}{21} + \frac{2}{7}$	$\frac{8}{36} + \frac{8}{9}$	$\frac{8}{14} + \frac{1}{7}$
$\frac{7}{10} + \frac{21}{30}$	$\frac{3}{30} + \frac{8}{10}$	$\frac{8}{40} + \frac{7}{10}$	$\frac{8}{14} + \frac{3}{7}$	$\frac{5}{50} + \frac{9}{10}$	$\frac{12}{21} + \frac{4}{7}$			
$\frac{3}{10} + \frac{18}{20}$	$\frac{1}{10} + \frac{3}{20}$	$\frac{7}{9} + \frac{3}{27}$	$\frac{14}{18} + \frac{5}{9}$	$\frac{6}{12} + \frac{1}{6}$	$\frac{6}{9} + \frac{2}{3}$	$\frac{10}{50} + \frac{9}{10}$		
$\frac{1}{10} + \frac{6}{27}$	$\frac{7}{9} + \frac{8}{18}$	$\frac{5}{9} + \frac{8}{36}$	$\frac{4}{18} + \frac{5}{9}$	$\frac{10}{16} + \frac{1}{8}$	$\frac{3}{21} + \frac{6}{7}$	$\frac{4}{14} + \frac{5}{7}$		
$\frac{7}{12} + \frac{19}{20}$	$\frac{1}{10} + \frac{12}{36}$	$\frac{4}{9} + \frac{21}{27}$	$\frac{5}{8} + \frac{8}{32}$	$\frac{15}{24} + \frac{3}{8}$	$\frac{14}{16} + \frac{1}{8}$	$\frac{6}{21} + \frac{6}{7}$		
$\frac{8}{10} + \frac{1}{2}$	$\frac{8}{14} + \frac{1}{7}$	$\frac{24}{27} + \frac{2}{9}$	$\frac{16}{18} + \frac{1}{9}$	$\frac{5}{40} + \frac{7}{8}$	$\frac{12}{32} + \frac{5}{8}$	$\frac{21}{24} + \frac{3}{8}$		
						$\frac{3}{4} + \frac{1}{8}$		
						$\frac{16}{20} + \frac{2}{5}$		

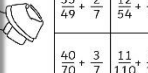


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## Adding Fractions Totalling One Whole

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

Find the path through the maze to help the dog find his bone by shading or colouring the addition pairs that total one whole.

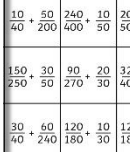
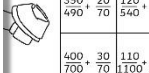
	$\frac{1}{4} + \frac{5}{20}$	$\frac{24}{40} + \frac{1}{5}$	$\frac{20}{50} + \frac{2}{5}$	$\frac{22}{55} + \frac{4}{5}$
	$\frac{15}{25} + \frac{3}{5}$	$\frac{9}{27} + \frac{2}{3}$	$\frac{32}{40} + \frac{1}{5}$	$\frac{30}{50} + \frac{2}{5}$
	$\frac{3}{4} + \frac{6}{24}$	$\frac{12}{18} + \frac{1}{3}$	$\frac{12}{27} + \frac{2}{3}$	$\frac{11}{55} + \frac{4}{5}$
$\frac{6}{18} + \frac{1}{3}$	$\frac{15}{27} + \frac{2}{3}$	$\frac{16}{48} + \frac{5}{6}$	$\frac{35}{42} + \frac{1}{6}$	
$\frac{6}{54} + \frac{8}{9}$	$\frac{36}{42} + \frac{1}{7}$	$\frac{8}{48} + \frac{5}{6}$		
$\frac{35}{49} + \frac{2}{7}$	$\frac{12}{54} + \frac{8}{9}$	$\frac{30}{42} + \frac{1}{7}$		
$\frac{40}{70} + \frac{3}{7}$	$\frac{11}{110} + \frac{9}{10}$	$\frac{36}{63} + \frac{4}{7}$		
$\frac{6}{9} + \frac{2}{3}$	$\frac{22}{110} + \frac{9}{10}$	$\frac{27}{63} + \frac{4}{7}$	$\frac{15}{35} + \frac{5}{7}$	
$\frac{30}{40} + \frac{1}{8}$	$\frac{8}{56} + \frac{6}{7}$	$\frac{10}{35} + \frac{5}{7}$	$\frac{24}{56} + \frac{6}{7}$	
$\frac{30}{48} + \frac{3}{8}$	$\frac{35}{40} + \frac{1}{8}$	$\frac{16}{56} + \frac{6}{7}$	$\frac{2}{6} + \frac{1}{3}$	
$\frac{21}{56} + \frac{5}{8}$	$\frac{24}{48} + \frac{3}{8}$	$\frac{3}{4} + \frac{1}{8}$	$\frac{16}{20} + \frac{2}{5}$	

Add and Subtract Fractions | Lesson 3 of 3: Adding Fractions to Total One

## Adding Fractions Totalling One Whole

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

Find the path through the maze to help the dog find his bone by shading or colouring the addition pairs that total one whole.

	$\frac{10}{40} + \frac{50}{200}$	$\frac{240}{400} + \frac{10}{50}$	$\frac{200}{500} + \frac{20}{50}$	$\frac{220}{550} + \frac{40}{50}$
	$\frac{150}{250} + \frac{30}{50}$	$\frac{90}{270} + \frac{20}{30}$	$\frac{320}{400} + \frac{10}{50}$	$\frac{300}{500} + \frac{20}{50}$
	$\frac{30}{40} + \frac{60}{240}$	$\frac{120}{180} + \frac{10}{30}$	$\frac{120}{180} + \frac{10}{30}$	$\frac{110}{550} + \frac{40}{50}$
$\frac{60}{180} + \frac{10}{270}$	$\frac{150}{270} + \frac{20}{30}$	$\frac{160}{480} + \frac{50}{60}$	$\frac{350}{420} + \frac{10}{60}$	
$\frac{60}{540} + \frac{80}{90}$	$\frac{360}{420} + \frac{10}{70}$	$\frac{80}{480} + \frac{50}{60}$		
$\frac{350}{490} + \frac{20}{70}$	$\frac{120}{540} + \frac{80}{90}$	$\frac{300}{420} + \frac{10}{70}$		
$\frac{400}{700} + \frac{30}{70}$	$\frac{110}{1100} + \frac{90}{100}$	$\frac{360}{630} + \frac{40}{70}$		
$\frac{60}{90} + \frac{20}{110}$	$\frac{220}{1100} + \frac{90}{100}$	$\frac{270}{630} + \frac{40}{70}$	$\frac{150}{350} + \frac{50}{70}$	
$\frac{300}{400} + \frac{10}{80}$	$\frac{80}{560} + \frac{60}{70}$	$\frac{100}{350} + \frac{50}{70}$	$\frac{240}{560} + \frac{60}{70}$	
$\frac{300}{480} + \frac{10}{80}$	$\frac{350}{400} + \frac{10}{80}$	$\frac{160}{560} + \frac{60}{70}$	$\frac{20}{60} + \frac{10}{30}$	
$\frac{210}{560} + \frac{50}{80}$	$\frac{240}{480} + \frac{30}{80}$	$\frac{30}{40} + \frac{10}{80}$	$\frac{160}{200} + \frac{20}{50}$	

Add and Subtract Fractions | Lesson 3 of 3: Adding Fractions to Total One



# One Whole Fraction Pairs

Whole Class

Hand out the One Whole Fraction Pairs Cards.

Move quietly around the classroom to find the person who has a fraction which adds to yours to make a whole.

Explain how you know you have found the correct fraction.

$$\frac{1}{2}$$

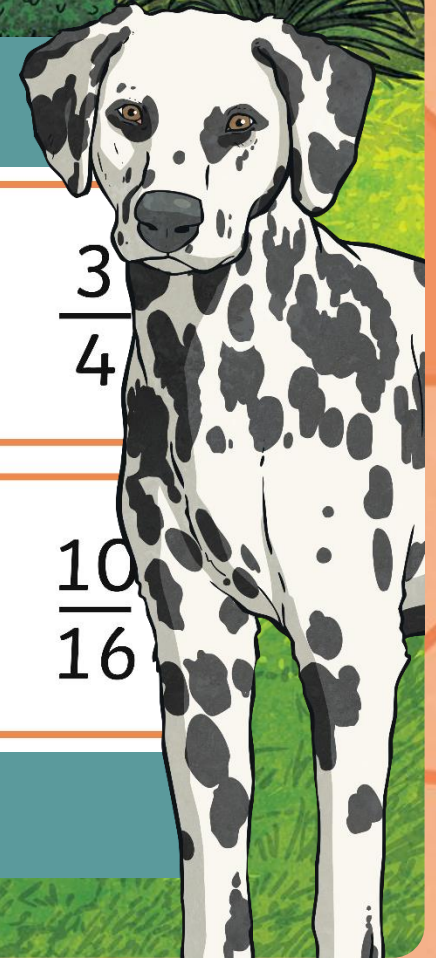
$$\frac{1}{4}$$

$$\frac{3}{4}$$

$$\frac{12}{21}$$

$$\frac{15}{35}$$

$$\frac{10}{16}$$



# Aim



- I can add fractions with different denominators that are multiples of the same number to total one.

# Success Criteria

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



