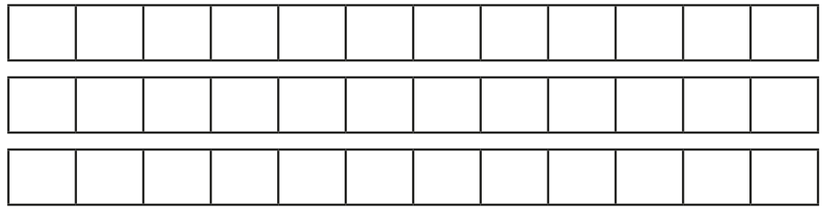
Subtract – breaking the whole

Qu Mon 1 Mar

1 Complete the subtractions.

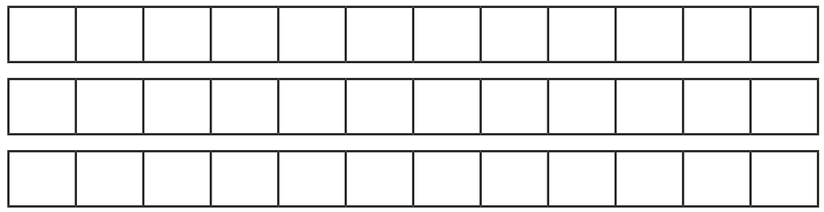
Use the bar models to help you.

a)



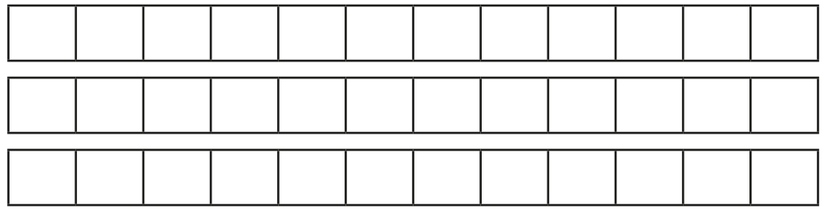
$2\frac{1}{2} - \frac{7}{12} =$ ☐

b)



$2\frac{1}{3} - \frac{7}{12} =$ ☐

c)



$2\frac{1}{4} - \frac{7}{12} =$ ☐

2 **a)** Complete the subtractions.

$3\frac{1}{4} - \frac{1}{8} =$ ☐

$3\frac{1}{4} - \frac{2}{8} =$ ☐

$3\frac{1}{4} - \frac{3}{8} =$ ☐

$3\frac{1}{4} - \frac{4}{8} =$ ☐

b) At what point did the answer break the whole? Why?

c) Tick the calculations that will break the whole.

$3\frac{1}{2} - \frac{9}{10}$	$7\frac{3}{4} - \frac{1}{8}$	$6\frac{11}{12} - \frac{2}{3}$	$4\frac{2}{5} - \frac{7}{15}$

3 Complete the subtractions.

a) $3\frac{1}{5} - \frac{7}{15} =$ ☐

b) $3\frac{1}{16} - \frac{5}{8} =$ ☐

c) $4\frac{5}{12} - \frac{5}{6} =$ ☐

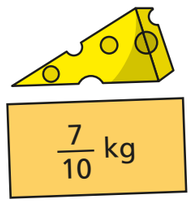
d) $2\frac{1}{6} - \frac{5}{12} =$ ☐

e) $3\frac{2}{9} - \frac{13}{18} =$ ☐

f) $3\frac{4}{9} - \frac{13}{27} =$ ☐

4 Here are some ingredients.

Potatoes



Cheese

Carrots

a) How much more do the carrots weigh than the cheese?

The carrots weigh ☐ kg more than the cheese.

b) Jack uses $\frac{17}{20}$ kg of carrots.

How many kilograms of carrots does he have left?

Jack has ☐ kg of carrots left.

c) Jack uses all the cheese and the same amount of potatoes.

How much do the leftover potatoes weigh?

The leftover potatoes weigh ☐ kg.

5 Eva is doing the long jump.

On her 1st attempt, she jumps $3\frac{2}{9}$ m.

Her 2nd attempt is $\frac{2}{3}$ m shorter than her first.

How far does Eva jump on her 2nd attempt?

Eva jumps ☐ m on her 2nd attempt.

6 **a)** The difference between a mixed number and a fraction is $\frac{7}{8}$

The fraction has a denominator of 16

What could the mixed number and the fraction be?

Give two possible answers.

☐ and ☐ ☐ and ☐

b) Talk to a partner about how you could find more answers.

White

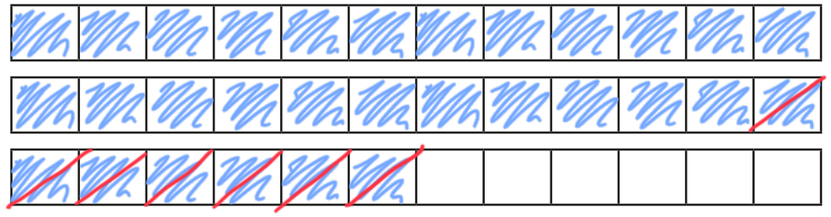
Subtract – breaking the whole

Ans Mon 1 Mar

1 Complete the subtractions.

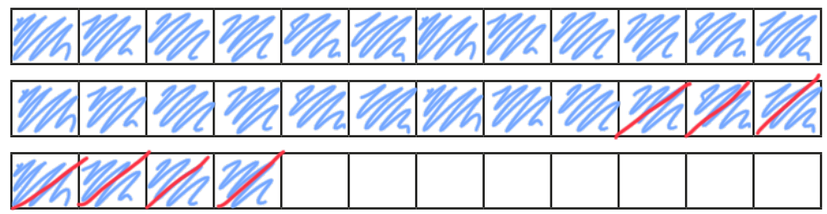
Use the bar models to help you.

a)



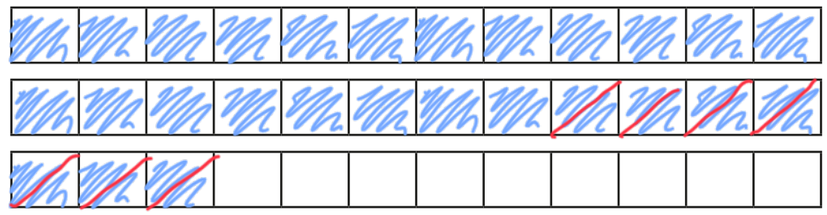
$2\frac{1}{2} - \frac{7}{12} = \boxed{1\frac{11}{12}}$

b)



$2\frac{1}{3} - \frac{7}{12} = \boxed{1\frac{3}{4}}$

c)



$2\frac{1}{4} - \frac{7}{12} = \boxed{1\frac{2}{3}}$

2 **a)** Complete the subtractions.

$3\frac{1}{4} - \frac{1}{8} = \boxed{3\frac{1}{8}}$

$3\frac{1}{4} - \frac{2}{8} = \boxed{3}$

$3\frac{1}{4} - \frac{3}{8} = \boxed{2\frac{7}{8}}$

$3\frac{1}{4} - \frac{4}{8} = \boxed{2\frac{3}{4}}$

b) At what point did the answer break the whole? Why?

c) Tick the calculations that will break the whole.

$3\frac{1}{2} - \frac{9}{10}$ ✓ | $7\frac{3}{4} - \frac{1}{8}$ | $6\frac{11}{12} - \frac{2}{3}$ | $4\frac{2}{5} - \frac{7}{15}$ ✓

3 Complete the subtractions.

a) $3\frac{1}{5} - \frac{7}{15} = \boxed{2\frac{11}{15}}$

b) $3\frac{1}{16} - \frac{5}{8} = \boxed{2\frac{7}{16}}$

c) $4\frac{5}{12} - \frac{5}{6} = \boxed{3\frac{7}{12}}$

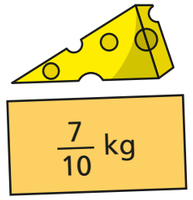
d) $2\frac{1}{6} - \frac{5}{12} = \boxed{1\frac{3}{4}}$

e) $3\frac{2}{9} - \frac{13}{18} = \boxed{2\frac{1}{2}}$

f) $3\frac{4}{9} - \frac{13}{27} = \boxed{2\frac{26}{27}}$

4 Here are some ingredients.

Potatoes



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The carrots weigh $\frac{7}{10}$ kg more than the cheese.

b) Jack uses $\frac{17}{20}$ kg of carrots.

How many kilograms of carrots does he have left?

Jack has $\frac{11}{20}$ kg of carrots left.

c) Jack uses all the cheese and the same amount of potatoes.

How much do the leftover potatoes weigh?

The leftover potatoes weigh $1\frac{4}{5}$ kg.

5 Eva is doing the long jump.

On her 1st attempt, she jumps $3\frac{2}{9}$ m.

Her 2nd attempt is $\frac{2}{3}$ m shorter than her first.

How far does Eva jump on her 2nd attempt?

Eva jumps $2\frac{5}{9}$ m on her 2nd attempt.

6 **a)** The difference between a mixed number and a fraction is $\frac{7}{8}$

The fraction has a denominator of 16

What could the mixed number and the fraction be?

Give two possible answers.

e.g.

$1\frac{1}{16}$ and $\frac{3}{16}$ $\quad$ $1\frac{3}{16}$ and $\frac{5}{16}$

b) Talk to a partner about how you could find more answers.

White

Qu Tues 2 Mar

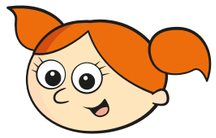
Subtract 2 mixed numbers

1 Amir and Alex are working out $3\frac{1}{2} - 2\frac{1}{4}$

Amir

First subtract 2 from 3, then subtract $\frac{1}{4}$ from $\frac{1}{2}$ That leaves $1\frac{1}{4}$

Convert to an improper fraction first, $\frac{7}{2} - \frac{9}{4}$, then $\frac{14}{4} - \frac{9}{4} = \frac{5}{4} = 1\frac{1}{4}$



Alex

Whose method do you prefer?

2 Use your preferred method to complete the subtractions.

a) $4\frac{4}{5} - 2\frac{3}{10} =$ ☐

c) $16\frac{1}{2} - 5\frac{1}{4} =$ ☐

b) $3\frac{5}{8} - 1\frac{1}{4} =$ ☐

d) $10\frac{5}{6} - 5\frac{5}{12} =$ ☐

What do you notice about your answer to part d)?

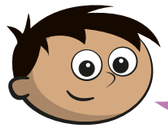
3 Car A travels for $15\frac{1}{4}$ miles.

Car B travels for $21\frac{5}{12}$ miles.

How much further does Car B travel than Car A?

Car B travels ☐ miles further than Car A.

4 Amir and Dora are working out $4\frac{1}{5} - 1\frac{2}{5}$



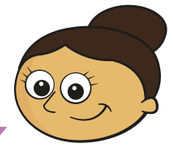
Amir

You can't use my method because you can't do $\frac{1}{5} - \frac{2}{5}$

a) Do you agree with Amir?

b)

I know that $4\frac{1}{5} = 3\frac{6}{5}$



Dora

How does this help you to work out the subtraction?

c) Complete the calculation.

$4\frac{1}{5} - 1\frac{2}{5} =$ ☐

5 Complete the subtractions.

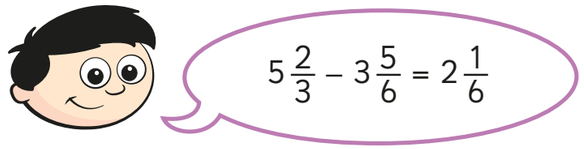
a) $4\frac{4}{5} - 2\frac{9}{10} =$ ☐

b) $3\frac{5}{8} - 1\frac{3}{4} =$ ☐

c) $5\frac{2}{7} - 2\frac{11}{14} =$ ☐

d) $2\frac{1}{6} - 1\frac{7}{18} =$ ☐

6 Dexter is subtracting fractions.



Explain the mistake that Dexter has made.

_____

_____

_____

7 Here are some number cards.

$3\frac{1}{12}$	$4\frac{1}{2}$	$2\frac{5}{24}$	$4\frac{5}{6}$

a) Use two of the number cards to find the smallest difference.

☐ – ☐ = ☐

b) Use two of the number cards to find the difference closest to 2

☐ – ☐ = ☐

8 Complete the magic square.

The total of each column is $5\frac{7}{20}$

The total of each row is $5\frac{7}{20}$

$1\frac{1}{2}$	$1\frac{3}{5}$	
	$1\frac{7}{20}$	$1\frac{7}{10}$

9 A marathon is $26\frac{1}{5}$ miles.

Dexter has run $18\frac{1}{10}$ miles.

Eva has run $19\frac{3}{5}$ miles.

a) How much further has Eva run than Dexter?

☐ miles

b) How much further does Eva need to run to complete the marathon?

☐ miles

White

Subtract 2 mixed numbers

Ans Tues 2 Mar

1 Amir and Alex are working out $3\frac{1}{2} - 2\frac{1}{4}$

First subtract 2 from 3, then subtract $\frac{1}{4}$ from $\frac{1}{2}$ That leaves $1\frac{1}{4}$

Amir

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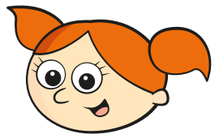

Alex

Whose method do you prefer?

2 Use your preferred method to complete the subtractions.

a) $4\frac{4}{5} - 2\frac{3}{10} =$ $2\frac{1}{2}$

c) $16\frac{1}{2} - 5\frac{1}{4} =$ $11\frac{1}{4}$

b) $3\frac{5}{8} - 1\frac{1}{4} =$ $2\frac{3}{8}$

d) $10\frac{5}{6} - 5\frac{5}{12} =$ $5\frac{5}{12}$

What do you notice about your answer to part d)?

3 Car A travels for $15\frac{1}{4}$ miles.

Car B travels for $21\frac{5}{12}$ miles.

How much further does Car B travel than Car A?

Car B travels $6\frac{1}{6}$ miles further than Car A.

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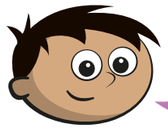

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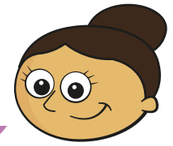


Dora

How does this help you to work out the subtraction?

$\frac{6}{5} - \frac{2}{5} = \frac{4}{5}$

c) Complete the calculation.

$4\frac{1}{5} - 1\frac{2}{5} =$ $2\frac{4}{5}$

5 Complete the subtractions.

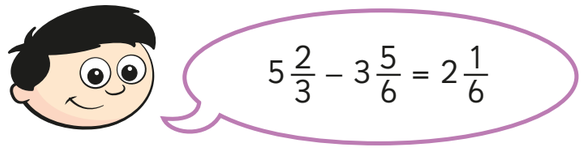
a) $4\frac{4}{5} - 2\frac{9}{10} =$ $1\frac{9}{10}$

c) $5\frac{2}{7} - 2\frac{11}{14} =$ $2\frac{1}{2}$

b) $3\frac{5}{8} - 1\frac{3}{4} =$ $1\frac{7}{8}$

d) $2\frac{1}{6} - 1\frac{7}{18} =$ $\frac{7}{9}$

6 Dexter is subtracting fractions.



Explain the mistake that Dexter has made.

He has found the difference between the wholes $(5-3=2)$ and the difference between the fractions $(\frac{5}{6} - \frac{2}{3} = \frac{1}{6})$ rather than doing $5\frac{2}{3} - 3\frac{5}{6} = 4\frac{5}{3} - 3\frac{5}{6} = 1\frac{5}{6}$

7 Here are some number cards.

$3\frac{1}{12}$	$4\frac{1}{2}$	$2\frac{5}{24}$	$4\frac{5}{6}$

a) Use two of the number cards to find the smallest difference.

$4\frac{5}{6} - 4\frac{1}{3} = \frac{1}{3}$

b) Use two of the number cards to find the difference closest to 2

$4\frac{5}{6} - 3\frac{1}{12} = 1\frac{3}{4}$

8 Complete the magic square.

The total of each column is $5\frac{7}{20}$

The total of each row is $5\frac{7}{20}$

$1\frac{1}{2}$	$1\frac{3}{5}$	$2\frac{1}{4}$
$2\frac{3}{10}$	$1\frac{7}{20}$	$1\frac{7}{10}$
$1\frac{11}{20}$	$2\frac{3}{5}$	$1\frac{2}{5}$

9 A marathon is $26\frac{1}{5}$ miles.

Dexter has run $18\frac{1}{10}$ miles.

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a) How much further has Eva run than Dexter?

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

b) How much further does Eva need to run to complete the marathon?

$6\frac{3}{5}$ miles

Multiply unit fractions by an int

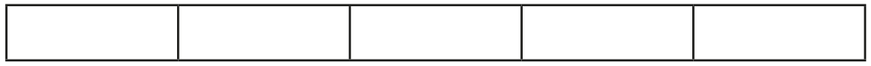
White

Qus Wed 3 Mar

1 Complete the calculations.

Use the bar models to help you.

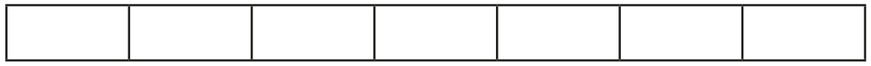
a)



$\frac{1}{5} + \frac{1}{5} + \frac{1}{5} = \square$

$3 \times \frac{1}{5} = \square$

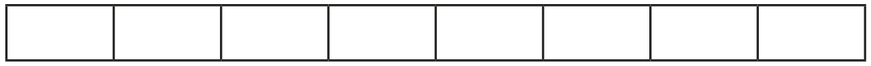
b)



$\frac{1}{7} + \frac{1}{7} + \frac{1}{7} + \frac{1}{7} = \square$

$4 \times \frac{1}{7} = \square$

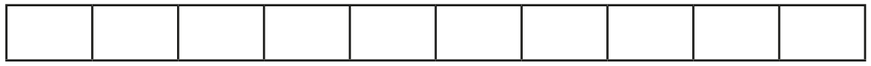
c)



$\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} = \square$

$5 \times \frac{1}{8} = \square$

d)



$\frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} = \square$

$7 \times \frac{1}{10} = \square$

2 Complete the multiplications.

a) $3 \times \frac{1}{8} = \square$

b) $3 \times \frac{1}{10} = \square$

c) $\frac{1}{8} \times 5 = \square$

d) $9 \times \frac{1}{10} = \square$

e) $\frac{1}{5} \times 4 = \square$

f) $\frac{1}{9} \times 8 = \square$

g) $8 \times \frac{1}{11} = \square$

h) $\frac{1}{11} \times 10 = \square$

3 Match the addition to the equivalent multiplication.

$\frac{1}{3} + \frac{1}{3}$	$2 \times \frac{1}{5}$
$\frac{1}{5} + \frac{1}{5} + \frac{1}{5}$	$\frac{1}{4} \times 3$
$\frac{1}{5} + \frac{1}{5}$	$3 \times \frac{1}{5}$
$\frac{1}{4} + \frac{1}{4} + \frac{1}{4}$	$2 \times \frac{1}{3}$

4 A pizza is cut into sixths.

Jack eats five of the slices.

Write a multiplication to represent this.

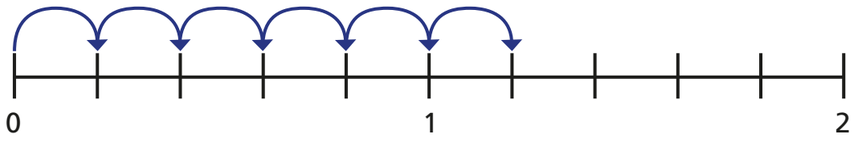
$\square \times \square = \square$

5 Complete the multiplications.

Use the number lines to help you.

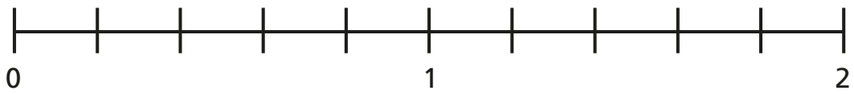
Give each answer as an improper fraction and as a mixed number.

a)



$6 \times \frac{1}{5} = \square = \square$

b)



$9 \times \frac{1}{5} = \square = \square$

6 Complete the multiplications.

a) $11 \times \frac{1}{10} = \square = \square$

b) $11 \times \frac{1}{9} = \square = \square$

c) $\frac{1}{8} \times 11 = \square = \square$

d) $11 \times \frac{1}{7} = \square = \square$

e) $11 \times \frac{1}{6} = \square = \square$

What do you notice?

Does this pattern continue?

7 Complete the calculations.

a) $\square \times \frac{1}{3} = \frac{2}{3}$

b) $\square \times \frac{1}{3} = 1$

c) $\square \times \frac{1}{7} = 1$

d) $\frac{1}{7} \times \square = 1\frac{3}{7}$

e) $\frac{1}{8} \times \square = 1\frac{3}{8}$

f) $\square \times \frac{1}{2} = 3\frac{1}{2}$

g) $\square \times \frac{1}{3} = 3\frac{1}{3}$

h) $\frac{1}{4} \times \square = 3\frac{1}{4}$

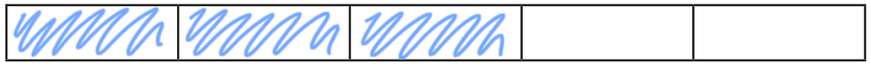
Multiply unit fractions by an integer

Ans Wed 3 Mar

1 Complete the calculations.

Use the bar models to help you.

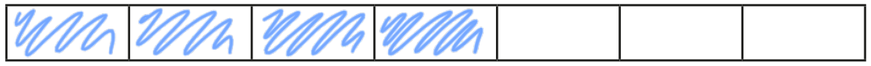
a)



$\frac{1}{5} + \frac{1}{5} + \frac{1}{5} = \frac{3}{5}$

$3 \times \frac{1}{5} = \frac{3}{5}$

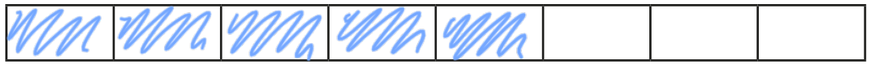
b)



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

$4 \times \frac{1}{7} = \frac{4}{7}$

c)



$\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} = \frac{5}{8}$

$5 \times \frac{1}{8} = \frac{5}{8}$

d)

$\frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} = \frac{7}{10}$

$7 \times \frac{1}{10} = \frac{7}{10}$

2 Complete the multiplications.

a) $3 \times \frac{1}{8} = \frac{3}{8}$

b) $3 \times \frac{1}{10} = \frac{3}{10}$

c) $\frac{1}{8} \times 5 = \frac{5}{8}$

d) $9 \times \frac{1}{10} = \frac{9}{10}$

e) $\frac{1}{5} \times 4 = \frac{4}{5}$

f) $\frac{1}{9} \times 8 = \frac{8}{9}$

g) $8 \times \frac{1}{11} = \frac{8}{11}$

h) $\frac{1}{11} \times 10 = \frac{10}{11}$

3 Match the addition to the equivalent multiplication.

$\frac{1}{3} + \frac{1}{3}$	$2 \times \frac{1}{5}$
$\frac{1}{5} + \frac{1}{5} + \frac{1}{5}$	$\frac{1}{4} \times 3$
$\frac{1}{5} + \frac{1}{5}$	$3 \times \frac{1}{5}$
$\frac{1}{4} + \frac{1}{4} + \frac{1}{4}$	$2 \times \frac{1}{3}$

4 A pizza is cut into sixths.

Jack eats five of the slices.

Write a multiplication to represent this.

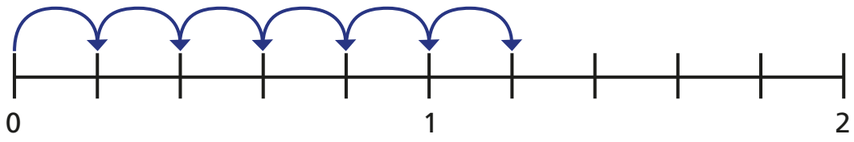
$5 \times \frac{1}{6} = \frac{5}{6}$

5 Complete the multiplications.

Use the number lines to help you.

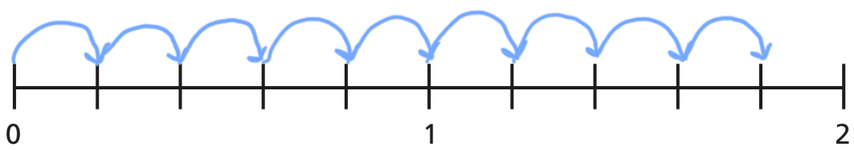
Give each answer as an improper fraction and as a mixed number.

a)



$6 \times \frac{1}{5} = \frac{6}{5} = 1\frac{1}{5}$

b)



$9 \times \frac{1}{5} = \frac{9}{5} = 1\frac{4}{5}$

6 Complete the multiplications.

a) $11 \times \frac{1}{10} = \frac{11}{10} = 1\frac{1}{10}$

b) $11 \times \frac{1}{9} = \frac{11}{9} = 1\frac{2}{9}$

c) $\frac{1}{8} \times 11 = \frac{11}{8} = 1\frac{3}{8}$

d) $11 \times \frac{1}{7} = \frac{11}{7} = 1\frac{4}{7}$

e) $11 \times \frac{1}{6} = \frac{11}{6} = 1\frac{5}{6}$

What do you notice?

Does this pattern continue?

7 Complete the calculations.

a) $2 \times \frac{1}{3} = \frac{2}{3}$

b) $3 \times \frac{1}{3} = 1$

c) $7 \times \frac{1}{7} = 1$

d) $\frac{1}{7} \times 10 = 1\frac{3}{7}$

e) $\frac{1}{8} \times 11 = 1\frac{3}{8}$

f) $7 \times \frac{1}{2} = 3\frac{1}{2}$

g) $10 \times \frac{1}{3} = 3\frac{1}{3}$

h) $\frac{1}{4} \times 13 = 3\frac{1}{4}$

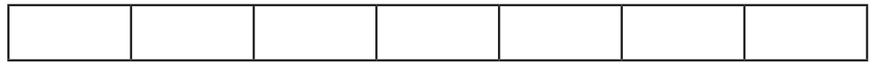
Multiply non-unit fractions by an integer

Qus Thurs 4 Mar

1 Complete the calculations.

Use the bar models to help you.

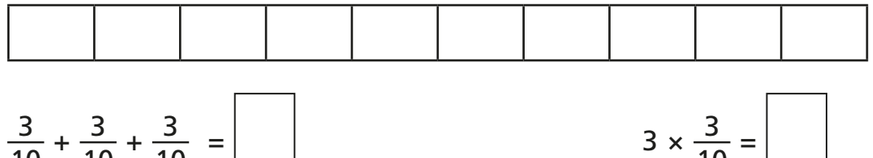
a)



$\frac{2}{7} + \frac{2}{7} + \frac{2}{7} =$ ☐

$3 \times \frac{2}{7} =$ ☐

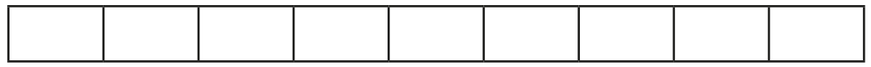
b)



$\frac{3}{10} + \frac{3}{10} + \frac{3}{10} =$ ☐

$3 \times \frac{3}{10} =$ ☐

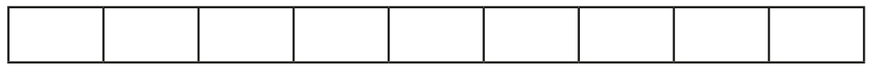
c)



$\frac{2}{9} + \frac{2}{9} + \frac{2}{9} + \frac{2}{9} =$ ☐

$4 \times \frac{2}{9} =$ ☐

d)



$\frac{4}{9} + \frac{4}{9} =$ ☐

$2 \times \frac{4}{9} =$ ☐

What do you notice about parts c) and d)? Talk to a partner.

2 Complete the multiplications.

a) $2 \times \frac{3}{7} =$ ☐

b) $3 \times \frac{3}{11} =$ ☐

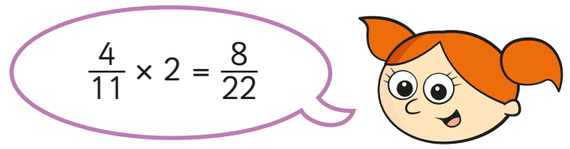
c) $\frac{2}{11} \times 4 =$ ☐

d) $5 \times \frac{2}{11} =$ ☐

e) $\frac{2}{15} \times 7 =$ ☐

f) $\frac{7}{15} \times 2 =$ ☐

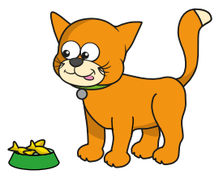
3



Explain the mistake that Alex has made.

4 A cat eats $\frac{2}{15}$ of a bag of biscuits a day.

What fraction of the bag does the cat eat in 4 days?



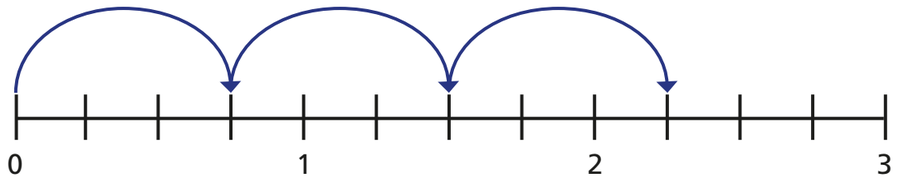
The cat eats ☐ of the bag in 4 days.

5 Complete the multiplications.

Use the number lines to help you.

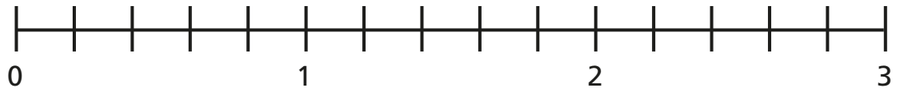
Give each answer as an improper fraction and as a mixed number.

a)



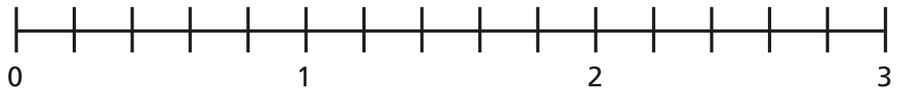
$3 \times \frac{3}{4} = \square = \square$

b)



$4 \times \frac{3}{5} = \square = \square$

c)



$3 \times \frac{4}{5} = \square = \square$

6 Complete the multiplications.

a) $5 \times \frac{2}{3} = \square = \square$

b) $4 \times \frac{4}{5} = \square = \square$

c) $\frac{2}{7} \times 11 = \square = \square$

d) $4 \times \frac{7}{9} = \square = \square$

e) $17 \times \frac{2}{11} = \square = \square$

f) Describe the pattern you can see in the answers.

g) What could the next multiplication in the pattern be?

Write two possible options.

_____

_____

7 Here are some digit cards.

1	3	5	7

Use the digit cards to complete the multiplication.

$\square \times \frac{\square}{8} = \frac{15}{8} = \square\frac{\square}{8}$

Multiply non-unit fractions by an integer

Ans Thurs 4 Mar

1 Complete the calculations.

Use the bar models to help you.

a)

$\frac{2}{7} + \frac{2}{7} + \frac{2}{7} = \boxed{\frac{6}{7}}$

$3 \times \frac{2}{7} = \boxed{\frac{6}{7}}$

b)

$\frac{3}{10} + \frac{3}{10} + \frac{3}{10} = \boxed{\frac{9}{10}}$

$3 \times \frac{3}{10} = \boxed{\frac{9}{10}}$

c)

$\frac{2}{9} + \frac{2}{9} + \frac{2}{9} + \frac{2}{9} = \boxed{\frac{8}{9}}$

$4 \times \frac{2}{9} = \boxed{\frac{8}{9}}$

d)

$\frac{4}{9} + \frac{4}{9} = \boxed{\frac{8}{9}}$

$2 \times \frac{4}{9} = \boxed{\frac{8}{9}}$

What do you notice about parts c) and d)? Talk to a partner.

2 Complete the multiplications.

a) $2 \times \frac{3}{7} = \boxed{\frac{6}{7}}$

b) $3 \times \frac{3}{11} = \boxed{\frac{9}{11}}$

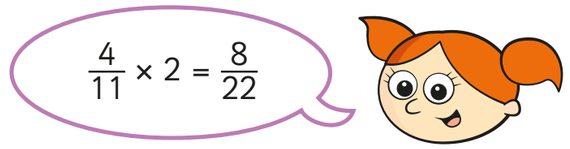
c) $\frac{2}{11} \times 4 = \boxed{\frac{8}{11}}$

d) $5 \times \frac{2}{11} = \boxed{\frac{10}{11}}$

e) $\frac{2}{15} \times 7 = \boxed{\frac{14}{15}}$

f) $\frac{7}{15} \times 2 = \boxed{\frac{14}{15}}$

3



Explain the mistake that Alex has made.

She has multiplied both the numerator and the denominator.

$\frac{4}{11} \times 2 = \frac{8}{11}$

4 A cat eats $\frac{2}{15}$ of a bag of biscuits a day.

What fraction of the bag does the cat eat in 4 days?

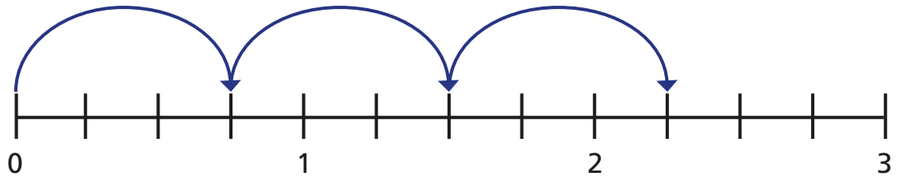
The cat eats $\boxed{\frac{8}{15}}$ of the bag in 4 days.

5 Complete the multiplications.

Use the number lines to help you.

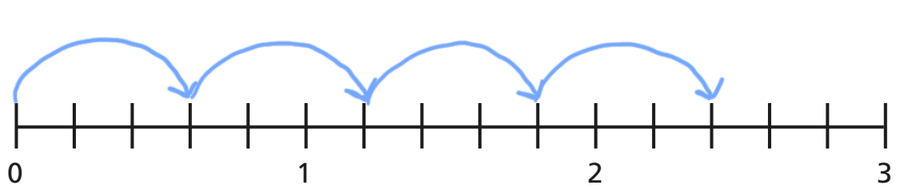
Give each answer as an improper fraction and as a mixed number.

a)



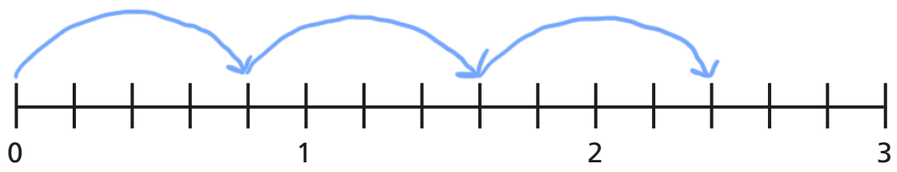
$3 \times \frac{3}{4} = \boxed{\frac{9}{4}} = \boxed{2\frac{1}{4}}$

b)



$4 \times \frac{3}{5} = \boxed{\frac{12}{5}} = \boxed{2\frac{2}{5}}$

c)



$3 \times \frac{4}{5} = \boxed{\frac{12}{5}} = \boxed{2\frac{2}{5}}$

6 Complete the multiplications.

a) $5 \times \frac{2}{3} = \boxed{\frac{10}{3}} = \boxed{3\frac{1}{3}}$

b) $4 \times \frac{4}{5} = \boxed{\frac{16}{5}} = \boxed{3\frac{1}{5}}$

c) $\frac{2}{7} \times 11 = \boxed{\frac{22}{7}} = \boxed{3\frac{1}{7}}$

d) $4 \times \frac{7}{9} = \boxed{\frac{28}{9}} = \boxed{3\frac{1}{9}}$

e) $17 \times \frac{2}{11} = \boxed{\frac{34}{11}} = \boxed{3\frac{1}{11}}$

f) Describe the pattern you can see in the answers.

g) What could the next multiplication in the pattern be?

Write two possible options.

e.g. $\frac{5}{13} \times 8$

$10 \times \frac{4}{13}$

7 Here are some digit cards.

1	3	5	7

Use the digit cards to complete the multiplication.

$\boxed{5} \times \frac{\boxed{3}}{8} = \frac{15}{8} = \boxed{1}\frac{\boxed{7}}{8}$

Multiply mixed numbers by integers

Qus Fri 5 Mar

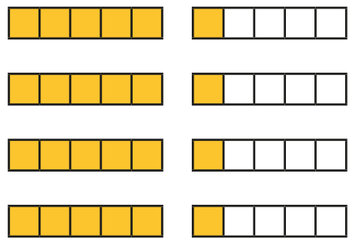
1 Complete the calculations.

a) $4 \times 1\frac{1}{5}$

$4 \times 1 =$ ☐

$4 \times \frac{1}{5} =$ ☐

☐ + ☐ = ☐

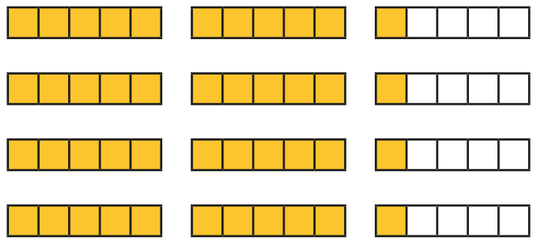


b) $4 \times 2\frac{1}{5}$

☐ × 2 = ☐

4 × ☐ = ☐

☐ + ☐ = ☐

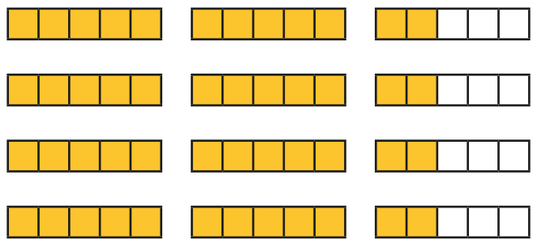


c) $4 \times 2\frac{2}{5}$

☐ × ☐ = ☐

4 × ☐ = ☐ = ☐

☐ + ☐ = ☐

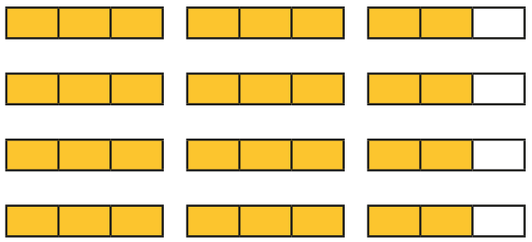


d) $4 \times 2\frac{2}{3}$

☐ × ☐ = ☐

☐ × ☐ = ☐ = ☐

☐ + ☐ = ☐



2 Complete the multiplications.

a) $3 \times 8\frac{2}{7} =$ ☐

b) $2 \times 12\frac{2}{11} =$ ☐

c) $6\frac{2}{11} \times 4 =$ ☐

d) $4 \times 6\frac{3}{19} =$ ☐

e) $2\frac{2}{25} \times 12 =$ ☐

f) $3\frac{1}{15} \times 8 =$ ☐

What is the same and what is different about your answers?

3 One bag of potatoes weighs $1\frac{3}{4}$ kg.

How much do 5 bags of potatoes weigh?

☐ kg

4 Complete the calculations.

a) $5 \times 2\frac{2}{3} = 10 + \frac{10}{3} =$ ☐

b) $4\frac{3}{7} \times 5 = 20 +$ ☐ = ☐

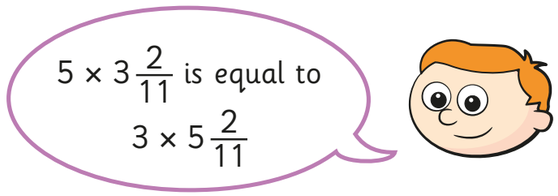
c) $8 \times 2\frac{5}{12} =$ ☐ + ☐ = ☐

d) $7 \times 3\frac{1}{5} =$ ☐ + ☐ = ☐

e) $4\frac{2}{9} \times 8 =$ ☐ + ☐ = ☐

f) $11 \times 4\frac{3}{10} =$ ☐ + ☐ = ☐

5



Do you agree with Ron? _____

Explain why.

_____

_____

6 Eva drinks $3\frac{1}{3}$ litres of water a day.

How many litres of water does she drink in a week?

☐ l

7 Here is a recipe for a birthday cake.

Butter $1\frac{3}{8}$ kg

Sugar $1\frac{5}{16}$ kg

Self-raising flour $2\frac{1}{4}$ kg

6 eggs

a) How much flour is needed for 3 birthday cakes?

☐ kg

b) Dora makes 4 birthday cakes.

How much more butter does she use than sugar?

☐ kg

Multiply mixed numbers by integers

Qus Fri 5 Mar

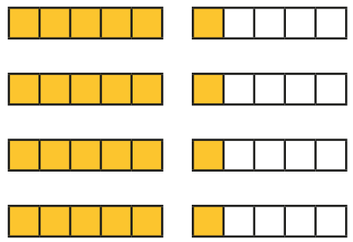
1 Complete the calculations.

a) $4 \times 1\frac{1}{5}$

$4 \times 1 =$ 4

$4 \times \frac{1}{5} =$ $\frac{4}{5}$

4 + $\frac{4}{5}$ = $4\frac{4}{5}$

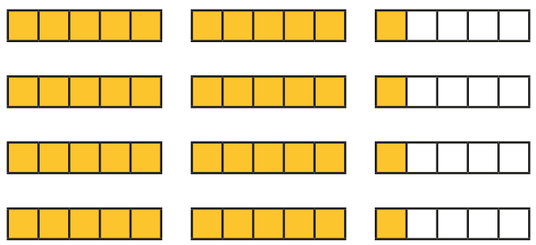


b) $4 \times 2\frac{1}{5}$

4 × 2 = 8

$4 \times \frac{1}{5} = \frac{4}{5}$

8 + $\frac{4}{5}$ = $8\frac{4}{5}$

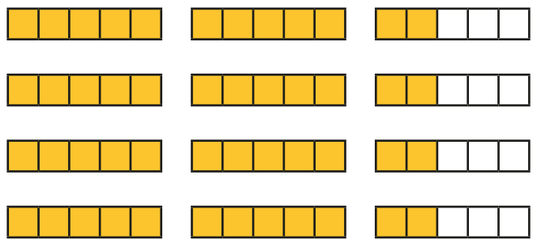


c) $4 \times 2\frac{2}{5}$

4 × 2 = 8

$4 \times \frac{2}{5} = \frac{8}{5} = 1\frac{3}{5}$

8 + $1\frac{3}{5}$ = $9\frac{3}{5}$

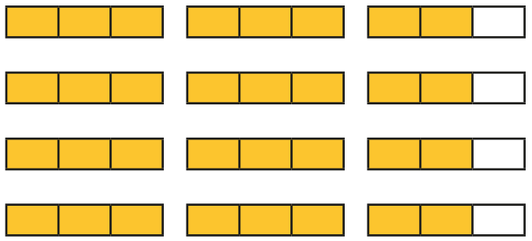


d) $4 \times 2\frac{2}{3}$

4 × 2 = 8

$4 \times \frac{2}{3} = \frac{8}{3} = 2\frac{3}{3}$

8 + $2\frac{2}{3}$ = $10\frac{2}{3}$



2 Complete the multiplications.

a) $3 \times 8\frac{2}{7} =$ $24\frac{6}{7}$

b) $2 \times 12\frac{2}{11} =$ $24\frac{4}{11}$

c) $6\frac{2}{11} \times 4 =$ $24\frac{8}{11}$

d) $4 \times 6\frac{3}{19} =$ $24\frac{12}{19}$

e) $2\frac{2}{25} \times 12 =$ $24\frac{24}{25}$

f) $3\frac{1}{15} \times 8 =$ $24\frac{8}{15}$

What is the same and what is different about your answers?

They all contain 24 wholes but the fraction is different

3 One bag of potatoes weighs $1\frac{3}{4}$ kg.

How much do 5 bags of potatoes weigh?

$8\frac{3}{4}$ kg

4 Complete the calculations.

a) $5 \times 2\frac{2}{3} = 10 + \frac{10}{3} =$ $13\frac{1}{3}$

b) $4\frac{3}{7} \times 5 = 20 +$ $\frac{15}{7}$ $=$ $22\frac{1}{7}$

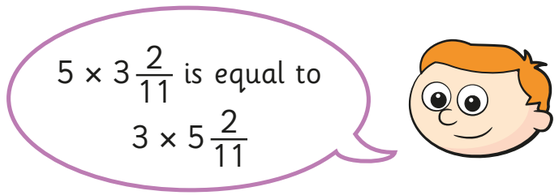
c) $8 \times 2\frac{5}{12} =$ 16 $+$ $\frac{40}{12}$ $=$ $19\frac{1}{3}$

d) $7 \times 3\frac{1}{5} =$ 21 $+$ $\frac{7}{5}$ $=$ $22\frac{2}{5}$

e) $4\frac{2}{9} \times 8 =$ 32 $+$ $\frac{16}{9}$ $=$ $33\frac{7}{9}$

f) $11 \times 4\frac{3}{10} =$ 44 $+$ $\frac{33}{10}$ $=$ $47\frac{3}{10}$

5



Do you agree with Ron? No

Explain why.

$5 \times 3\frac{2}{11} = 15\frac{10}{11}$

$3 \times 5\frac{2}{11} = 15\frac{6}{11}$

6 Eva drinks $3\frac{1}{3}$ litres of water a day.

How many litres of water does she drink in a week?

$23\frac{1}{3}$ l

7 Here is a recipe for a birthday cake.

Butter $1\frac{3}{8}$ kg

Sugar $1\frac{5}{16}$ kg

Self-raising flour $2\frac{1}{4}$ kg

6 eggs

a) How much flour is needed for 3 birthday cakes?

$6\frac{3}{4}$ kg

b) Dora makes 4 birthday cakes.

How much more butter does she use than sugar?

$\frac{1}{4}$ kg