


# HW: Y5

## Multiply a non-unit fraction by an integer


Rose Maths

1 Complete the calculations.

Use the bar models to help you.

a)   
 $\frac{2}{7} + \frac{2}{7} = \square$   $2 \times \frac{2}{7} = \square$

b)   
 $\frac{2}{7} + \frac{2}{7} + \frac{2}{7} = \square$   $3 \times \frac{2}{7} = \square$

c)   
 $\frac{3}{10} + \frac{3}{10} + \frac{3}{10} = \square$   $3 \times \frac{3}{10} = \square$

d)   
 $\frac{2}{9} + \frac{2}{9} + \frac{2}{9} + \frac{2}{9} = \square$   $4 \times \frac{2}{9} = \square$

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

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



2 Complete the multiplications.

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

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

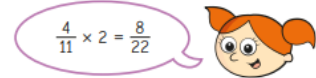
b)  $3 \times \frac{3}{11} = \square$

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

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

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

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Explain the mistake that Alex has made.

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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?



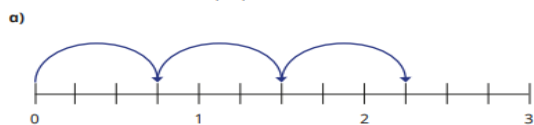
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Complete the multiplications.

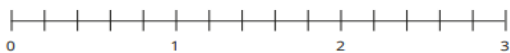
Use the number lines to help you.

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



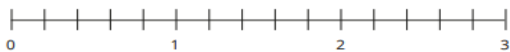
$3 \times \frac{3}{4} = \square = \square$

b)



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

c)



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



6

Complete the multiplications.

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

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

Describe the pattern you can see in the answers.

What could the next multiplication in the pattern be?

Write two possible options.

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Here are some digit cards.



Use the digit cards to complete the multiplication.

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

# Multiply a mixed number by an integer

1 Complete the calculations.

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

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

c)  $4 \times 2\frac{2}{5}$   
 $\square \times \square = \square$   
 $4 \times \square = \square = \square$   
 $\square + \square = \square$

d)  $4 \times 2\frac{2}{3}$   
 $\square \times \square = \square$   
 $\square \times \square = \square = \square$   
 $\square + \square = \square$

2 Complete the multiplications.

- a)  $3 \times 8\frac{2}{7} = \square$       d)  $4 \times 6\frac{3}{19} = \square$   
 b)  $2 \times 12\frac{2}{11} = \square$       e)  $2\frac{2}{25} \times 12 = \square$   
 c)  $6\frac{2}{11} \times 4 = \square$       f)  $3\frac{1}{15} \times 8 = \square$

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

- 3 The mass of one bag of potatoes is  $1\frac{3}{4}$  kg.  
 What is the mass of five bags of potatoes?



kg

4 Complete the calculations.

- a)  $5 \times 2\frac{2}{3} = 10 + \frac{10}{3} = \square$   
 b)  $4\frac{3}{7} \times 5 = 20 + \square = \square$   
 c)  $8 \times 2\frac{5}{12} = \square + \square = \square$   
 d)  $7 \times 3\frac{1}{5} = \square + \square = \square$   
 e)  $4\frac{2}{9} \times 8 = \square + \square = \square$   
 f)  $11 \times 4\frac{3}{10} = \square + \square = \square$

5

$5 \times 3\frac{2}{11}$  is equal to  
 $3 \times 5\frac{2}{11}$



Do you agree with Ron? \_\_\_\_\_  
 Explain your answer.

\_\_\_\_\_

\_\_\_\_\_

- 6 Eva drinks  $3\frac{1}{3}$  litres of water every day.  
 How many litres of water does she drink in a week?

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- 7 Here are the ingredients for making a large 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 three cakes?

kg

- b) Dora makes four cakes.  
 How much more butter does she use than sugar?

kg

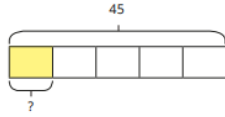
# Fraction of an amount

Maths

1 Annie and Mo are finding fractions of amounts.

a) Annie is trying to find  $\frac{1}{5}$  of 45

She draws this bar model.

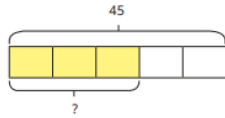


How does the bar model represent the calculation?

What is  $\frac{1}{5}$  of 45?



b) Mo is trying to find  $\frac{3}{5}$  of 45



How does the bar model represent the calculation?

What is  $\frac{3}{5}$  of 45?



What is the same and what is different about Annie and Mo's questions?



4 Write  $<$ ,  $>$  or  $=$  to compare the calculations.

a)  $\frac{5}{7}$  of 56   $\frac{5}{8}$  of 56      c)  $\frac{2}{3}$  of 63   $\frac{5}{8}$  of 64

b)  $\frac{4}{7}$  of 56   $\frac{5}{8}$  of 56      d)  $\frac{7}{10}$  of 350   $\frac{5}{7}$  of 350

5 165 children and adults go on a school trip. Two-thirds of the people are children.

a) How many adults are there on the school trip?

b)  $\frac{3}{5}$  of the children are boys.

How many boys are there on the school trip?

c)  $\frac{7}{10}$  of the children have an apple for lunch.

How many children do **not** have an apple for lunch?

2 Complete the calculations.

a)  $\frac{1}{3}$  of 27 =       b)  $\frac{1}{3}$  of 72 =       c)  $\frac{1}{3}$  of 90 =

$\frac{2}{3}$  of 27 =        $\frac{1}{6}$  of 72 =        $\frac{2}{6}$  of 90 =

$\frac{3}{3}$  of 27 =        $\frac{1}{12}$  of 72 =        $\frac{3}{9}$  of 90 =

What patterns do you notice?

3 Match the calculations to the correct amounts.

$\frac{5}{8}$ of 48	32
$\frac{2}{3}$ of 48	40
$\frac{5}{6}$ of 48	30
$\frac{3}{4}$ of 48	36

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6 Tick the odd one out.

$\frac{3}{4}$  of 80        $\frac{3}{8}$  of 160        $\frac{2}{3}$  of 90        $\frac{3}{4}$  of 100

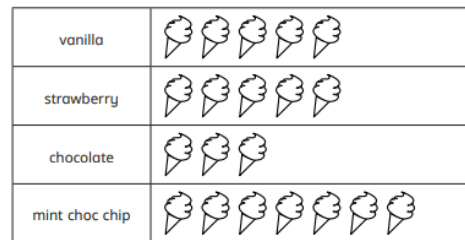
Explain your choice.

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7 320 people were asked to name their favourite flavour of ice cream. Here is a pictogram showing the results.



a) How many people chose mint choc chip?

b) How many more people chose vanilla than chose chocolate?

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