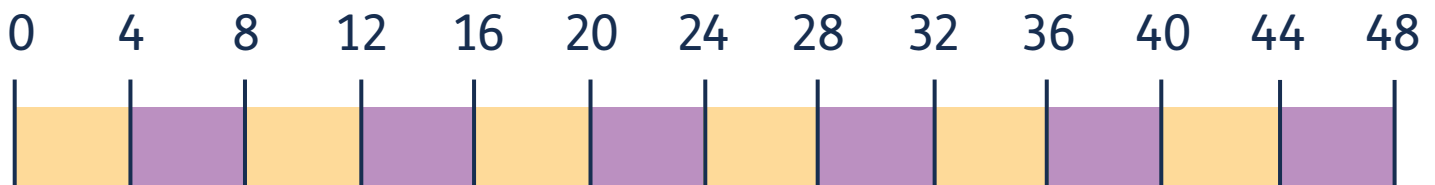


Multiplying and dividing

Answer sheet

Question 1

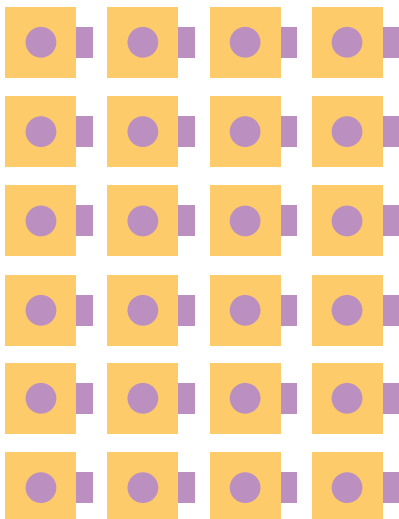
This counting stick counts in 4s. Can you use it to help you answer these questions?



- a** $\boxed{4} \times 4 = 16$ **b** $\boxed{6} \times 4 = 24$ **c** $\boxed{12} \times 4 = 48$
d $\boxed{2} \times 4 = 8$ **e** $\boxed{5} \times 4 = 20$ **f** $\boxed{8} \times 4 = 32$
g $\boxed{1} \times 4 = 4$ **h** $\boxed{9} \times 4 = 36$

Question 2

Can you make four multiplication and division sentences for these arrays?

a

$$\boxed{6} \times \boxed{4} = \boxed{24}$$

$$\boxed{24} \div \boxed{6} = \boxed{4}$$

$$\boxed{4} \times \boxed{6} = \boxed{24}$$

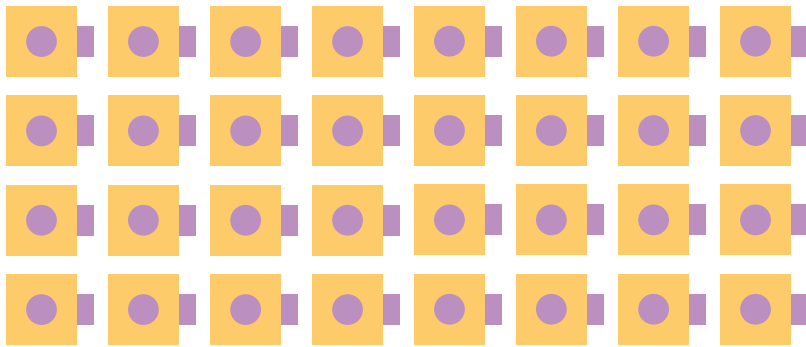
$$\boxed{24} \div \boxed{4} = \boxed{6}$$



Multiplying and dividing

Answer sheet

b



$$4 \times 8 = 32$$

$$32 \div 4 = 8$$

$$8 \times 4 = 32$$

$$32 \div 8 = 4$$

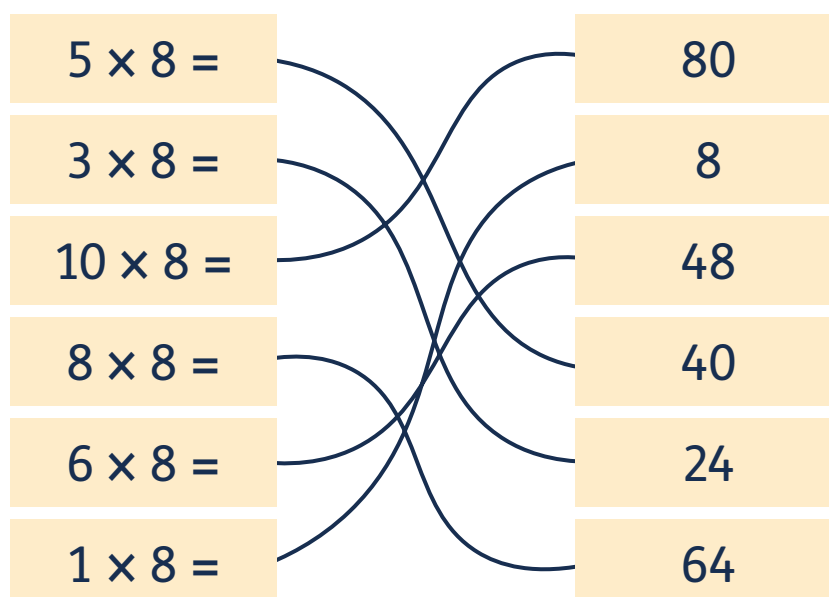
Question 3

This number line is counting in 8s.
Can you fill in the missing numbers?



Question 4

Match each calculation with its answer.



Multiplying and dividing

Answer sheet

Question 5

Can you complete these multiplication calculations?

a $24 \times 4 =$ 96

	T	O
	2	4
\times		4
	9	6
	1	

b $49 \times 8 =$ 392

	H	T	O
		4	9
\times			8
	3	9	2
		7	

c $22 \times 8 =$ 176

	H	T	O
		2	2
\times			8
	1	7	6
		1	

d $36 \times 8 =$ 288

	H	T	O
		3	6
\times			8
	2	8	8
		4	

e $52 \times 4 =$ 208

	H	T	O
		5	2
\times			4
	2	0	8

f $17 \times 4 =$ 68

	H	T	O
		1	7
\times			4
		6	8
		2	



Multiplying and dividing

Answer sheet

Question 6

Can you complete these division calculations?

a $80 \div 5 =$ 16

	T		O
	1		6
5	)	8	30

b $51 \div 3 =$ 17

	T		O
	1		7
3	)	5	21

c $76 \div 4 =$ 19

	T		O
	1		9
4	)	7	36

d $92 \div 4 =$ 23

	T		O
	2		3
4	)	9	12

e $96 \div 8 =$ 12

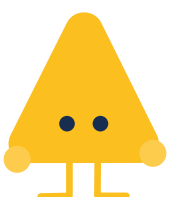
	T		O
	1		2
8	)	9	16

f $91 \div 7 =$ 13

	T		O
	1		3
7	)	9	21

Question 7

Can you answer these word problems?

a

Oranges are sold in bags of 8.
If I buy 7 bags, how many oranges
will I have?

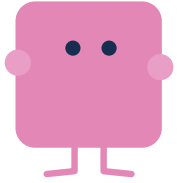
56 oranges



Multiplying and dividing

Answer sheet

b

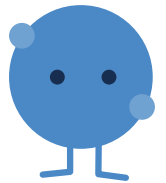


One large pack of sweets contains 32 sweets. How many sweets will 4 friends get if they share them equally?

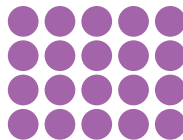
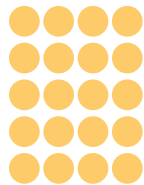
8 sweets

c

Sabine has 5 rows of buttons with 4 buttons in each row. Pierre has 4 rows of buttons with 5 buttons in each row. Who has more buttons?

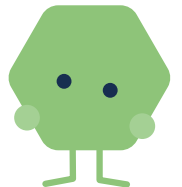


They have the same number of buttons! (Children might want to draw arrays to help answer this.)

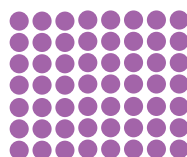
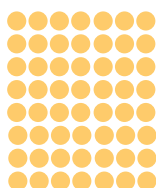


d

Sara has 56 stickers. She splits them equally among 7 friends. Dom also has 56 stickers. He splits them equally among 8 friends. Whose friends get more stickers?



Sara's friends get 8 stickers. Dom's friends get 7 stickers. Sara's friends get more stickers.

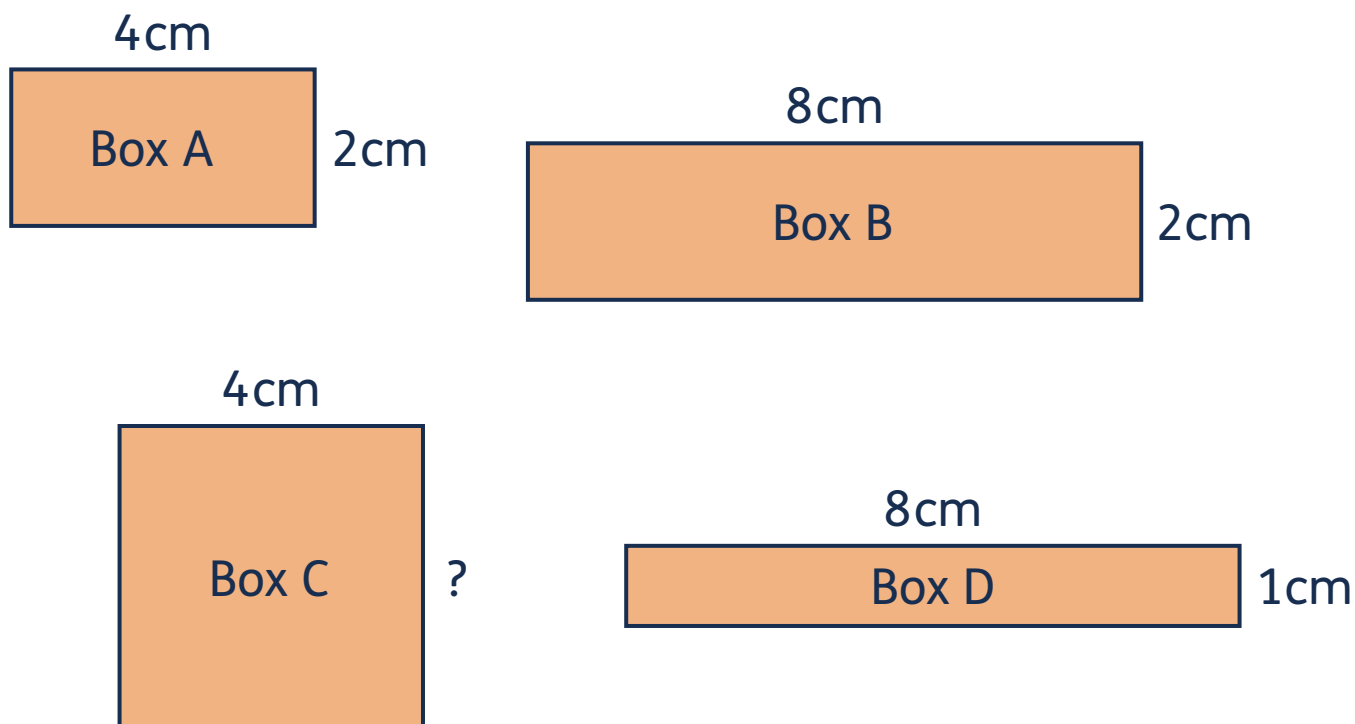


Perimeter and area

Answer sheet

Question 1

Boxes A, B and D are rectangles. Box C is a square.



- a What is the perimeter of Box A?
- b What is the perimeter of Box D?
- c What is the length of the missing side for Box C?
- d What is the perimeter of Box C?
- e Which box has the longest perimeter?
- f Which box has the shortest perimeter?

12cm

18cm

4cm

16cm

Box B

Box A



Perimeter and area

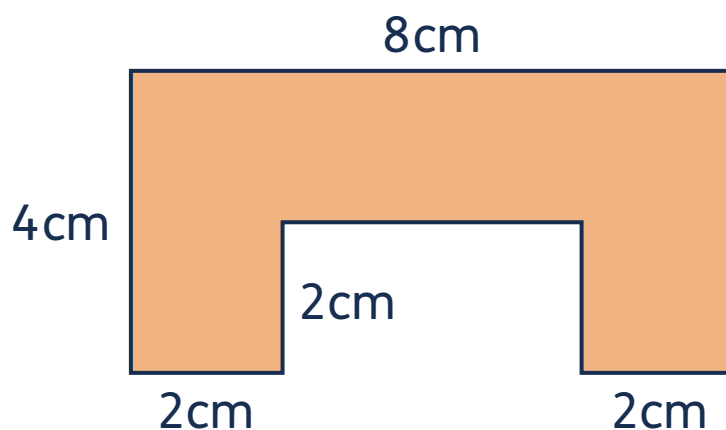
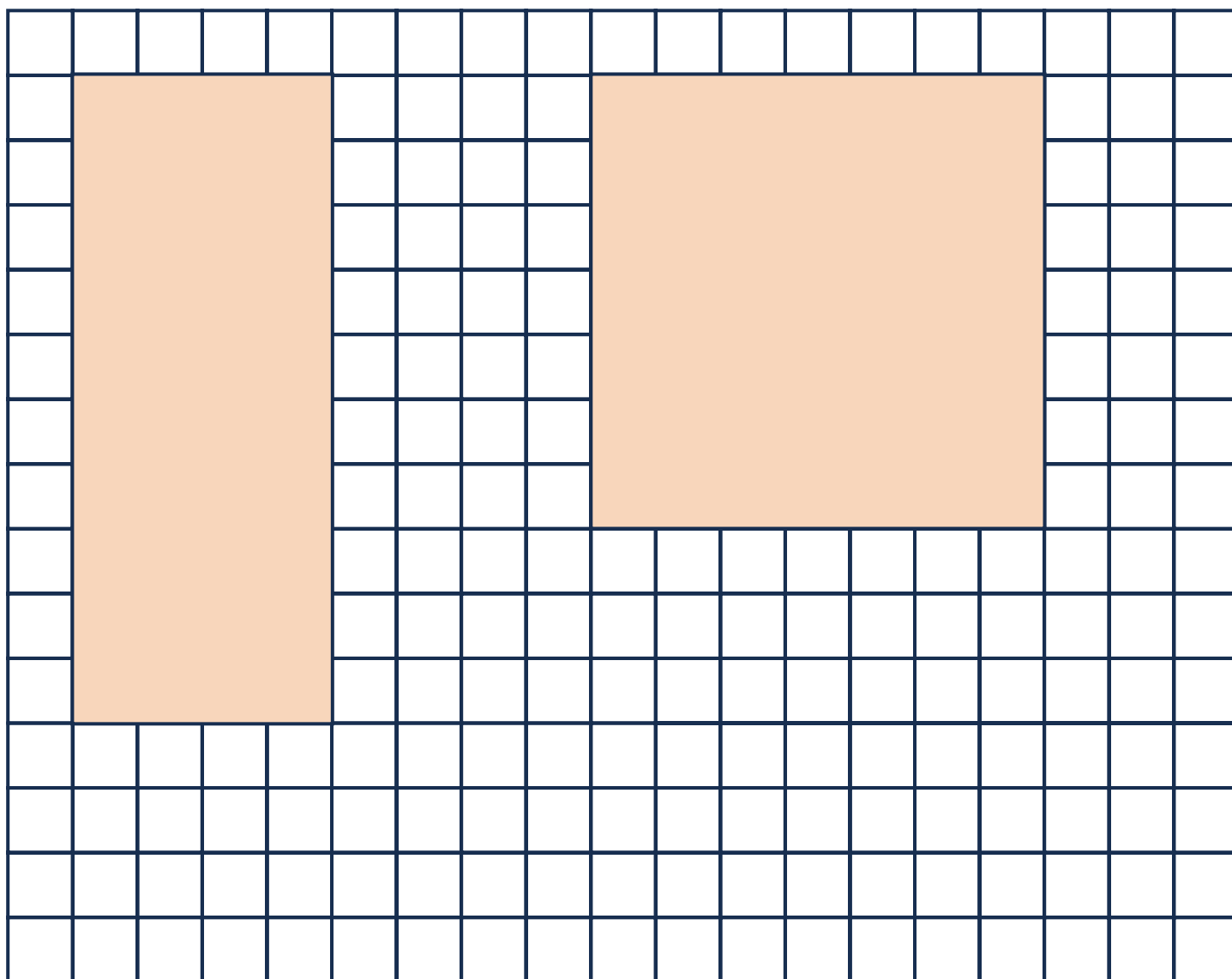
Answer sheet

Question 2

- a Can you calculate the perimeter of this shape?

28cm

- b Can you draw two more rectilinear shapes with the same perimeter?

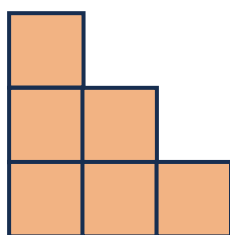
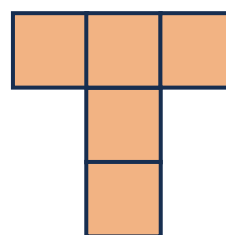
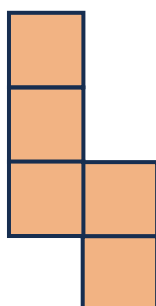
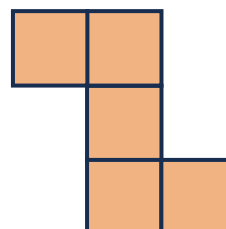
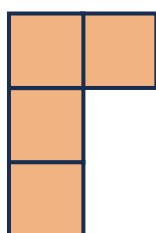
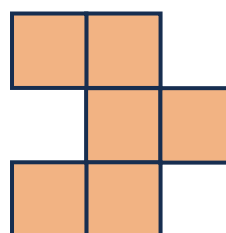
1 square = 1cm²

Perimeter and area

Answer sheet

Question 3

Finding area by counting squares.
What is the area of each shape?

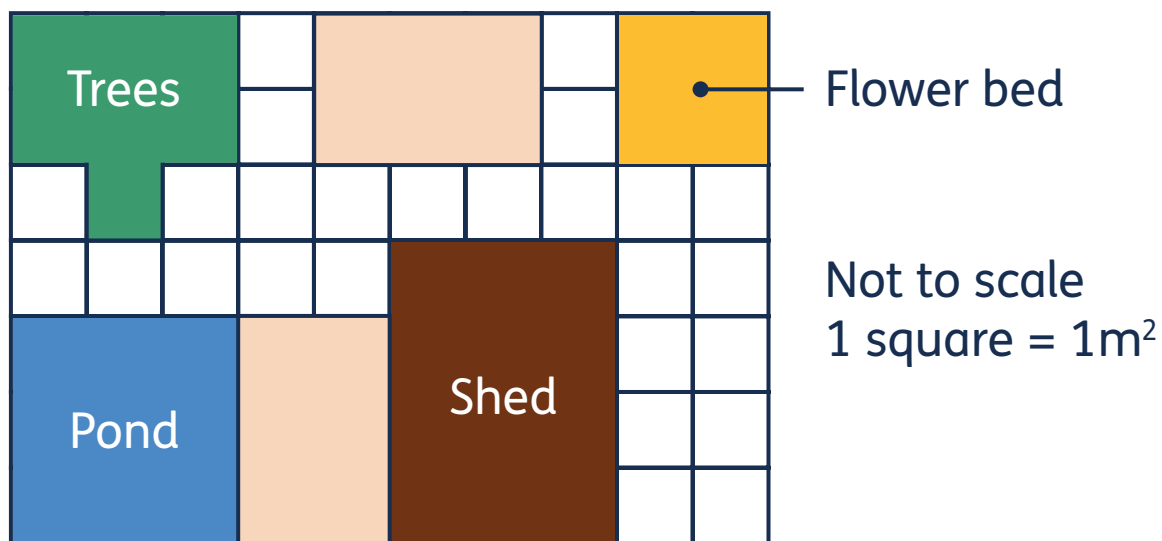
**a**Area = cm^2 **b**Area = cm^2 **c**Area = cm^2 **d**Area = cm^2 **e**Area = cm^2 **f**Area = cm^2 

Perimeter and area

Answer sheet

Question 4

William and his sister Lauren are designing a new home for each of their pets in the garden. The garden is 10m long and 7m wide. The pet homes need to be 2m wide and 3m long each.



- Can you shade the squares above to show where the two homes could go?
- What is the perimeter of each home?
- What is the maximum number of homes that could fit in the garden?
- What area does the shed take up?
- What is the area of the pond?
- If both pets have homes, how much of the garden is still empty?

10m

5

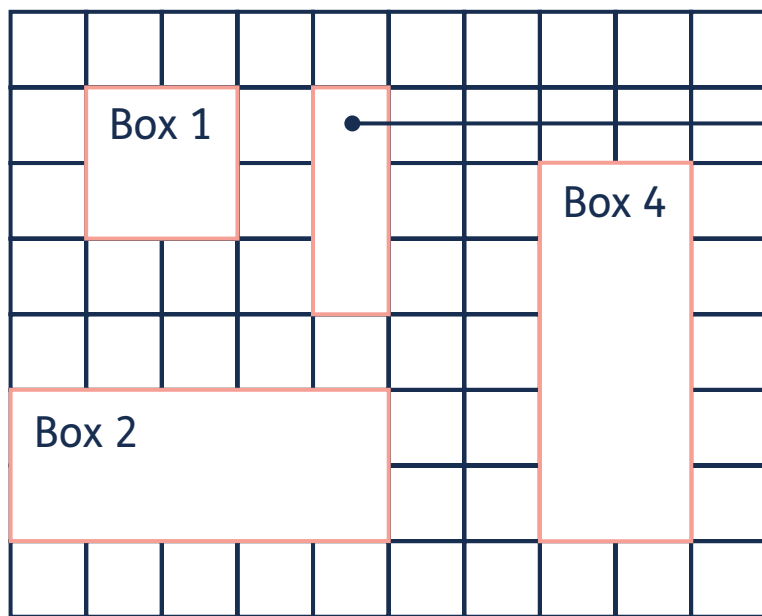
12m²9m²26m²

Fractions, perimeter and area

Answer sheet

Question 1

Take a look at the rectangles below, drawn on grid paper. 1 square = 1 cm²



Box 3

a What is the area of Box 1?

b What is the area of Box 4?

Using the formula of Length \times Width = Area:

c work out the area of Box 2

d what is the difference in area in cm² of Boxes 2 and 3?

Using the formula Area = Length \times Width, what is the area of these boxes?

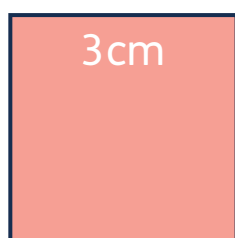
e



2cm

Area = cm²

f



3cm

Area = cm²

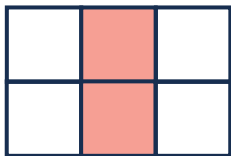


Fractions, perimeter and area

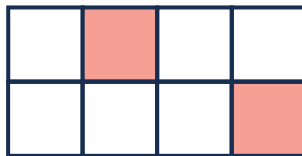
Answer sheet

Question 2

Some parts of these rectangles have been shaded.
Can you show these as fractions?

a

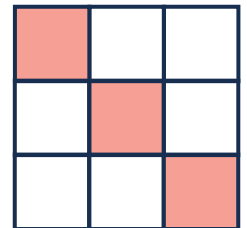
$$\frac{2}{6}$$

b

$$\frac{3}{8}$$

c

$$\frac{2}{5}$$

d

$$\frac{3}{9}$$

Can you show an equivalent fraction for each of the above?

a

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

b

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

c

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

d

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

Question 3

Can you match these pairs of equivalent fractions?

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

A

$$\frac{3}{8}$$

C

$$\frac{2}{5}$$

D

$$\frac{6}{12}$$

E

$$\frac{18}{36}$$

E

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

B

$$\frac{9}{24}$$

C

$$\frac{4}{16}$$

A

$$\frac{6}{15}$$

D

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

B



Fractions, perimeter and area

Answer sheet

Question 4

Convert these improper fractions and mixed numbers.
Give your answers in their lowest terms.

$$\text{a} \quad \frac{11}{5} = \boxed{2} \frac{\boxed{1}}{\boxed{5}}$$

$$\text{b} \quad \frac{5}{4} = \boxed{1} \frac{\boxed{1}}{\boxed{4}}$$

$$\text{c} \quad \frac{11}{3} = \boxed{3} \frac{\boxed{2}}{\boxed{3}}$$

$$\text{d} \quad \frac{13}{6} = \boxed{2} \frac{\boxed{1}}{\boxed{6}}$$

$$\text{e} \quad \frac{41}{8} = \boxed{5} \frac{\boxed{1}}{\boxed{8}}$$

$$\text{f} \quad 4 \frac{1}{2} = \frac{\boxed{9}}{\boxed{2}}$$

$$\text{g} \quad 2 \frac{4}{7} = \frac{\boxed{18}}{\boxed{7}}$$

$$\text{h} \quad 2 \frac{2}{9} = \frac{\boxed{20}}{\boxed{9}}$$

$$\text{i} \quad 8 \frac{1}{8} = \frac{\boxed{65}}{\boxed{8}}$$

$$\text{j} \quad 6 \frac{3}{5} = \frac{\boxed{33}}{\boxed{5}}$$

Can you order the fractions **a** to **j** from the smallest to the largest?

b, d, a, h, g, c, f, e, j, i



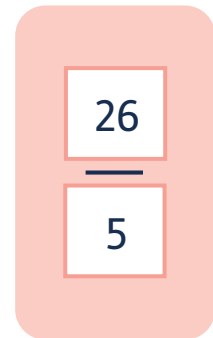
Fractions, perimeter and area

Answer sheet

Question 5

- a** Mikey and Kate were making cookies together. The recipe required $2\frac{3}{5}$ cups of sugar and double the amount of flour.

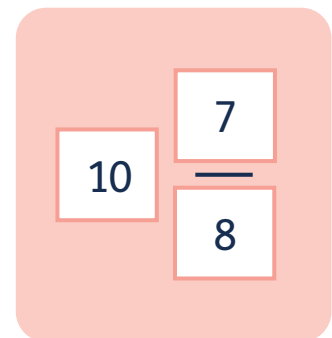
Can you show how much flour was needed as an improper fraction?



$$\begin{array}{r} 26 \\ - 5 \\ \hline \end{array}$$

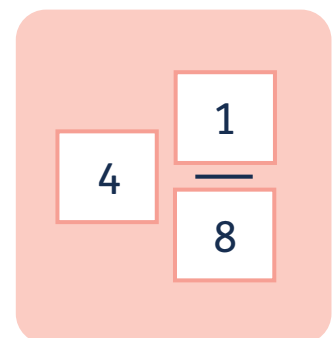
- b** Gabi needed $3\frac{5}{8}$ metres of material to make a tablecloth. Jessie needed 3 times as much for her table.

How much material did Jessie need?



$$\begin{array}{r} 10 \\ - 7 \\ \hline 8 \end{array}$$

- c** Hannah and Mae went strawberry picking. Hannah picked two and three quarters of a punnet and Mae picked half as many. How many punnets did they have altogether?



$$\begin{array}{r} 4 \\ - 1 \\ \hline 8 \end{array}$$



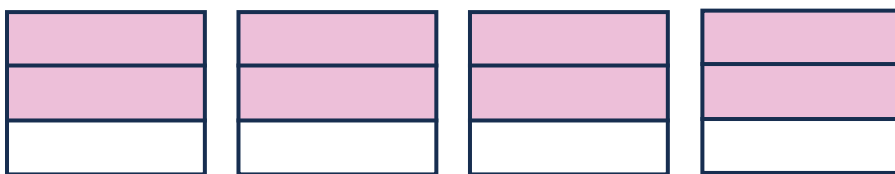
Multiply and divide fractions

Answer sheet

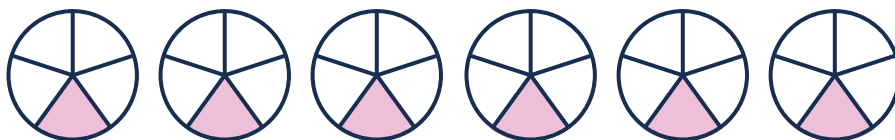
Question 1

Can you use these images to help you complete the calculations?

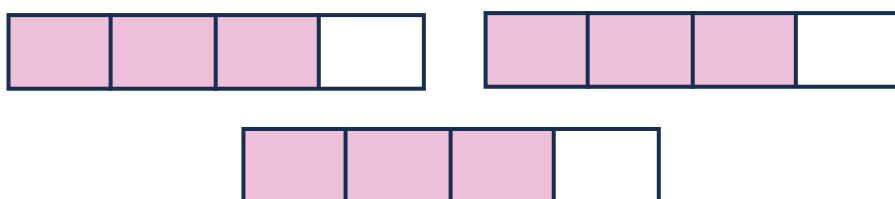
a $\frac{2}{3} \times 4 = \frac{\boxed{8}}{\boxed{3}}$



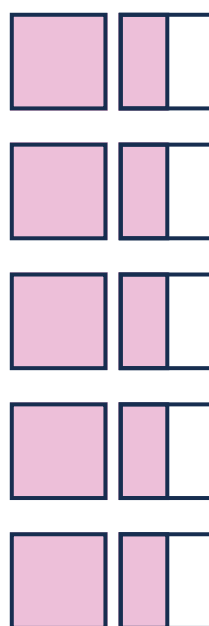
b $\frac{1}{5} \times 6 = \frac{\boxed{6}}{\boxed{5}}$



c $\frac{3}{4} \times 3 = \frac{\boxed{9}}{\boxed{4}}$



d $1\frac{1}{2} \times 5 = \boxed{7} \frac{\boxed{1}}{\boxed{2}}$



Multiply and divide fractions

Answer sheet

Question 2

Complete these multiplication questions. Give your answers as both an improper fraction and a mixed number.

$$\text{a } 7 \times \frac{1}{5} = \frac{7}{5} = 1 \frac{2}{5}$$

$$\text{b } 5 \times \frac{2}{8} = \frac{10}{8} = 1 \frac{2}{8}$$

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

$$\text{d } 4 \times \frac{6}{7} = \frac{24}{7} = 3 \frac{3}{7}$$

$$\text{e } \frac{2}{4} \times 9 = \frac{18}{4} = 4 \frac{2}{4}$$

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

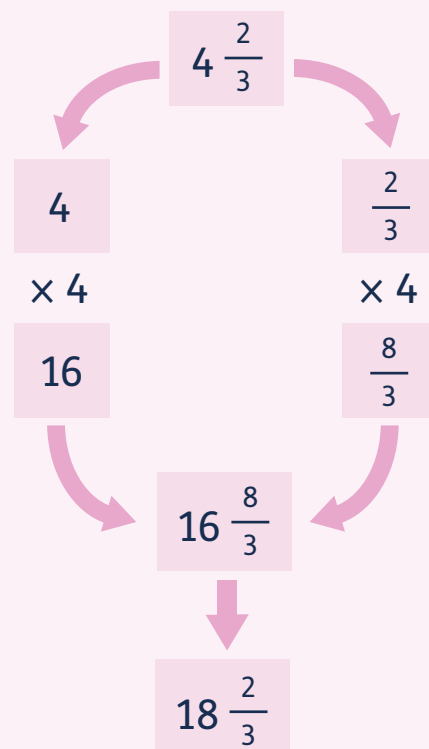
Question 3

We can use a function machine to help multiply mixed numbers by whole numbers.

Look at this example.

What is $4 \frac{2}{3} \times 4$?

$18 \frac{2}{3}$



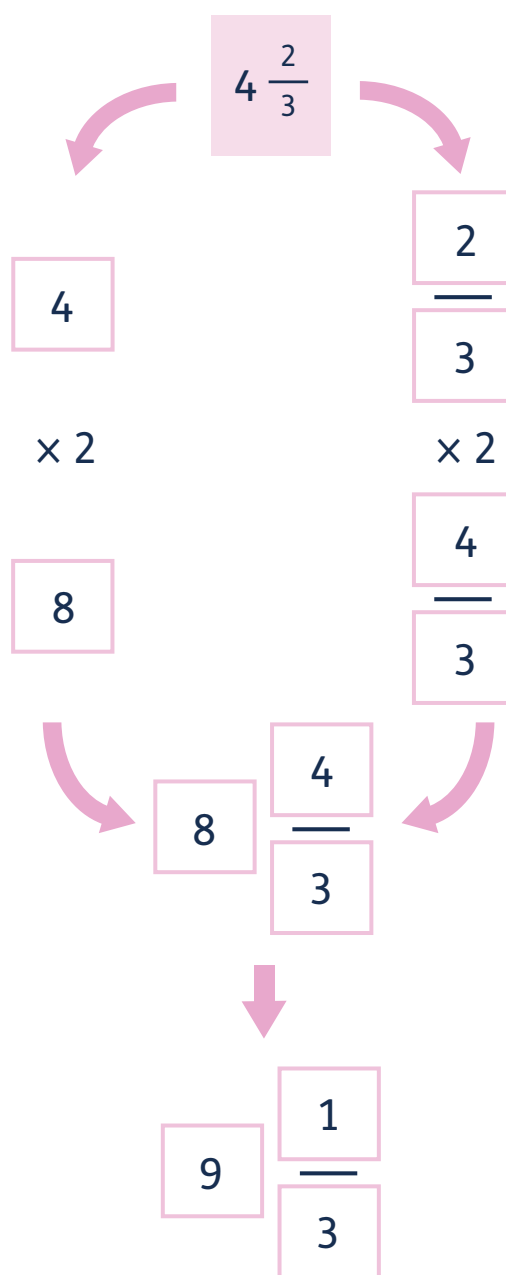
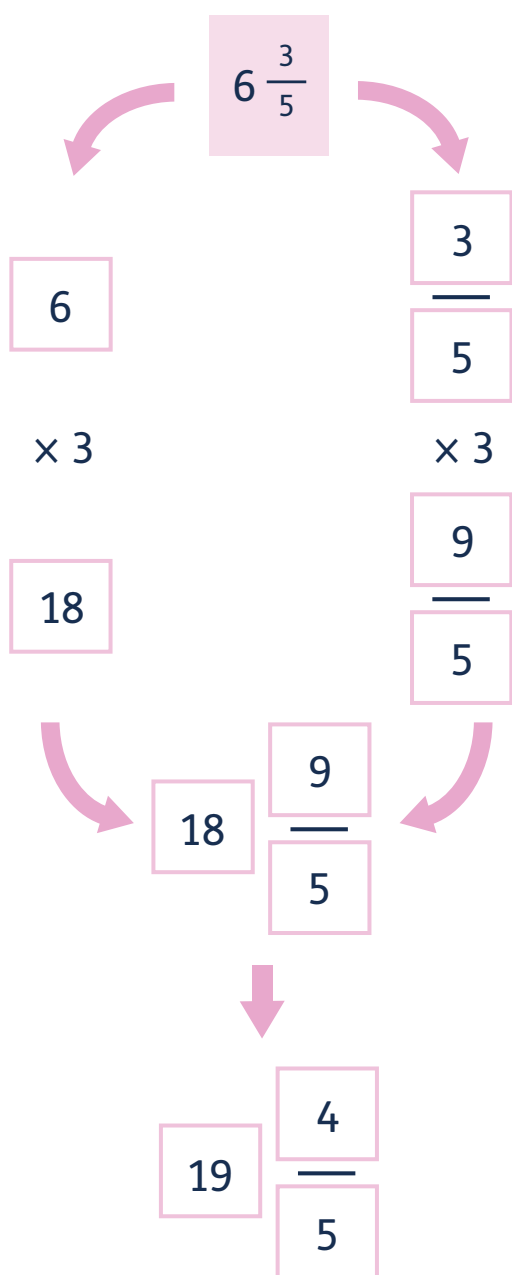
Multiply and divide fractions

Answer sheet

Can you use a function machine to help answer these questions?

a $6\frac{3}{5} \times 3 =$ 19 $\frac{\boxed{4}}{\boxed{5}}$

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



Multiply and divide fractions

Answer sheet

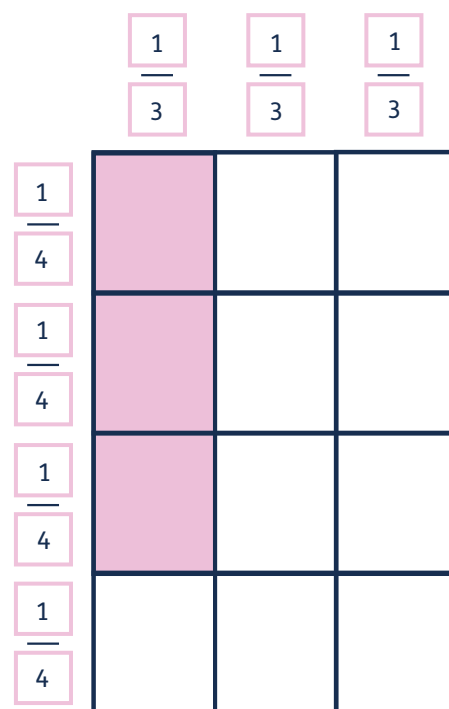
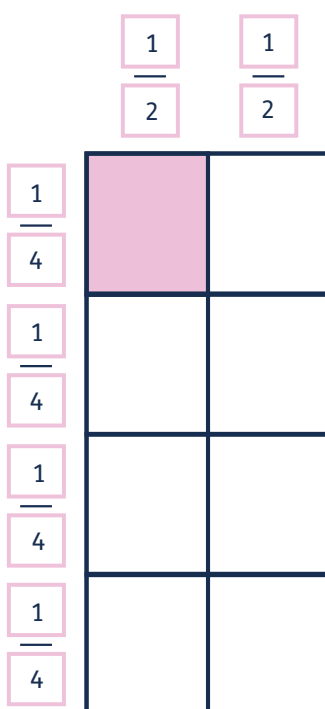
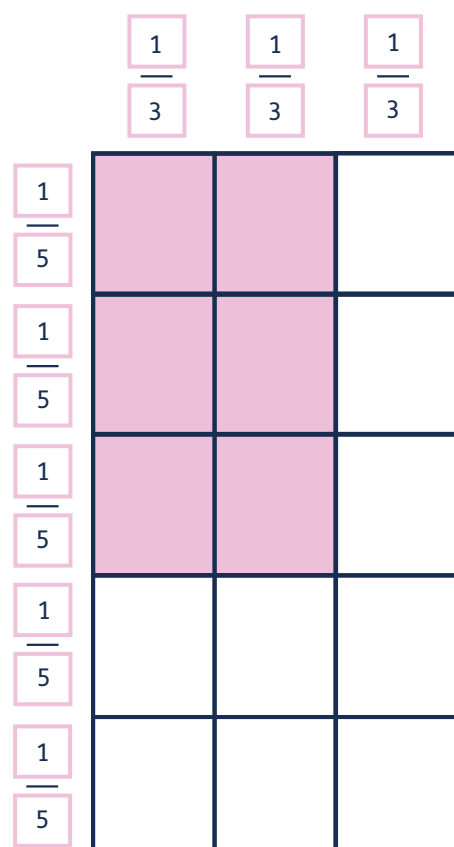
Question 4

Use these images to help you answer these questions.

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

b $\frac{1}{2} \times \frac{1}{4} = \frac{\boxed{1}}{\boxed{8}}$

c $\frac{1}{3} \times \frac{3}{4} = \frac{\boxed{3}}{\boxed{12}}$



Question 5

Can you complete these multiplication calculations?
Can you write them in their simplest form?

a $\frac{1}{4} \times \frac{2}{7} = \frac{\boxed{2}}{\boxed{28}} = \frac{\boxed{1}}{\boxed{14}}$

b $\frac{3}{5} \times \frac{1}{6} = \frac{\boxed{3}}{\boxed{30}} = \frac{\boxed{1}}{\boxed{10}}$



Multiply and divide fractions

Answer sheet

$$\text{c } \frac{1}{2} \times \frac{4}{7} = \frac{\boxed{4}}{\boxed{14}} = \frac{\boxed{2}}{\boxed{7}}$$

$$\text{d } \frac{7}{8} \times \frac{4}{5} = \frac{\boxed{28}}{\boxed{40}} = \frac{\boxed{7}}{\boxed{10}}$$

Question 6

Can you complete these division calculations?

$$\text{a } \frac{2}{3} \div 2 = \frac{\boxed{1}}{\boxed{3}}$$

$$\text{b } \frac{6}{10} \div 6 = \frac{\boxed{1}}{\boxed{10}}$$

$$\text{c } \frac{4}{5} \div 4 = \frac{\boxed{1}}{\boxed{5}}$$

$$\text{d } \frac{8}{9} \div 8 = \frac{\boxed{1}}{\boxed{9}}$$

$$\text{e } \frac{8}{10} \div 4 = \frac{\boxed{2}}{\boxed{10}}$$

$$\text{f } \frac{4}{7} \div 2 = \frac{\boxed{2}}{\boxed{7}}$$

$$\text{g } \frac{9}{14} \div 3 = \frac{\boxed{3}}{\boxed{14}}$$

$$\text{h } \frac{10}{13} \div 5 = \frac{\boxed{2}}{\boxed{13}}$$

$$\text{i } \frac{12}{15} \div \boxed{3} = \frac{4}{15}$$

$$\text{j } \frac{\boxed{6}}{8} \div 2 = \frac{3}{8}$$

$$\text{k } \frac{2}{5} \div \boxed{2} = \frac{1}{5}$$

$$\text{l } \frac{\boxed{6}}{15} \div 3 = \frac{2}{15}$$

Question 7

Can you complete these more challenging division calculations?

$$\text{a } \frac{1}{3} \div 2 = \frac{\boxed{1}}{\boxed{6}}$$

$$\text{b } \frac{3}{5} \div 4 = \frac{\boxed{3}}{\boxed{20}}$$

$$\text{c } \frac{5}{8} \div 3 = \frac{\boxed{5}}{\boxed{24}}$$

