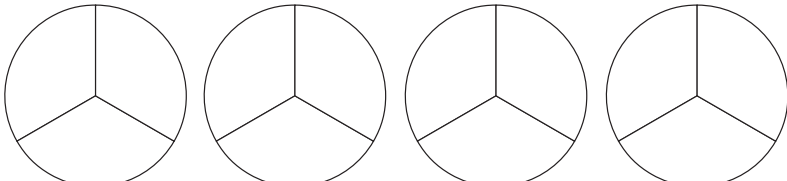
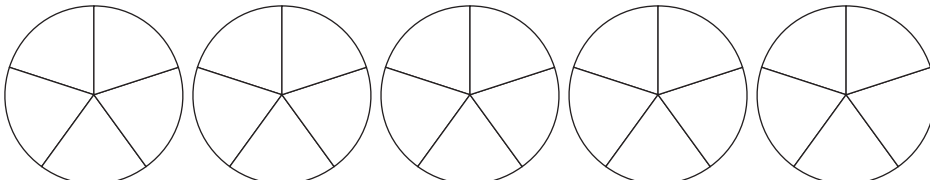
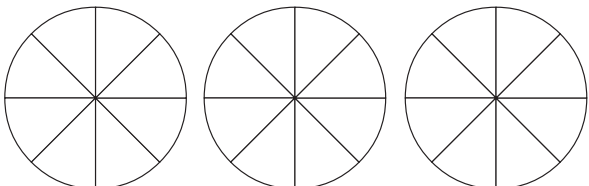




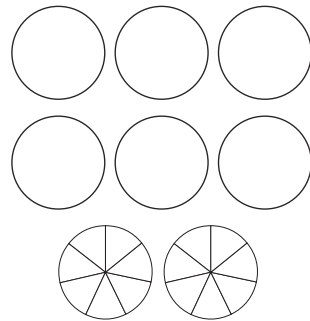
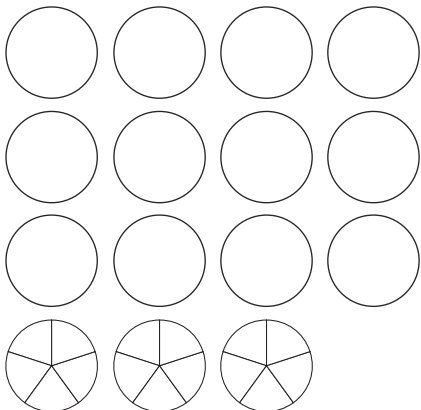
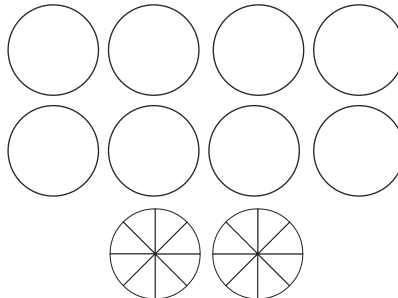
1) This diagram represents an integer being multiplied by a fraction. Shade in the diagram to show the correct answer and write it down as a simplified mixed number.

a)   $4 \times \frac{2}{3} = \frac{\square}{\square}$  or  $\square \frac{\square}{\square}$

b)   $5 \times \frac{3}{5} = \frac{\square}{\square}$  or  $\square$

c)   $3 \times \frac{5}{8} = \frac{\square}{\square}$  or  $\square \frac{\square}{\square}$

2) This diagram shows the partitioning method of multiplying an integer by a mixed number. Shade in the diagram to show the correct answer and write it down as a simplified mixed number.

a)  b)  c) 

$$2 \times 3 \frac{4}{7} = \frac{\square}{\square}$$

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

$$2 \times 4 \frac{6}{8} = \frac{\square}{\square}$$

3) Solve these calculations by converting the mixed number to an improper fraction then multiplying:

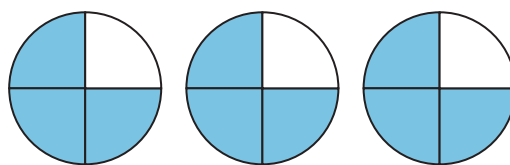
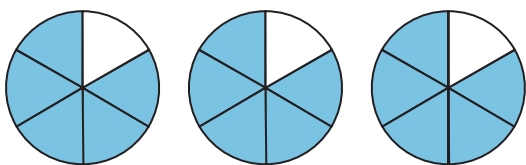
a)  $3 \times 2 \frac{3}{7} = \frac{\square}{\square}$

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



1) I am allowed to spend up to one hour watching TV in the evening. On each of Monday, Wednesday and Saturday, I spent 50 minutes out of my allowed hour watching TV.

Which diagram and calculation correctly represents the time I spent watching TV each night? Explain your reasoning.



$$3 \times \frac{5}{6} = \frac{15}{6} \text{ or } 2 \frac{3}{6} \text{ or } 2 \frac{1}{2} \text{ hours}$$

$$3 \times \frac{3}{4} = \frac{9}{4} \text{ or } 2 \frac{1}{4} \text{ hours}$$

2) Which calculation is the odd one out and why?

$$5 \times 2 \frac{4}{6} = \begin{array}{|c|} \hline \square \\ \hline \square \\ \hline \end{array}$$

$$5 \times 8 \frac{2}{3} = \begin{array}{|c|} \hline \square \\ \hline \square \\ \hline \end{array}$$

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



- 1) The school cook is working out how many potatoes she needs to buy to cook dinner for the school. She estimates that each class will eat  $3\frac{4}{7}$  kg of potatoes. She buys  $21\frac{3}{7}$  kg of potatoes altogether. How many classes is the school cook buying the potatoes for?

- 2) Using each of the digits 1 to 6 only once, investigate completing these multiplication statements.

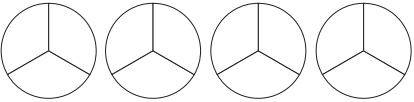
- a)  $? \times ? \frac{?}{?} =$  greatest possible answer. (Don't make an improper fraction within a mixed number.)


- b)  $? \times ? \frac{?}{?} =$  mixed number answer with  $\frac{1}{2}$  as the fraction

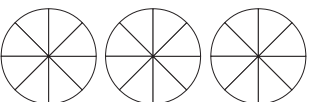
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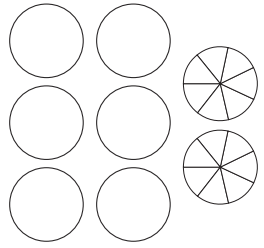
Shade in the diagram to show the correct answer and write it down as a simplified mixed number.

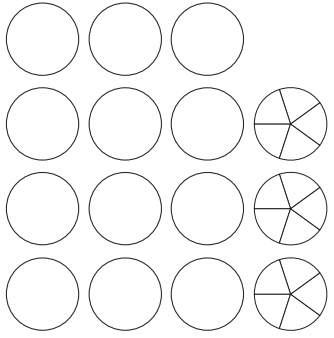
a)   $4 \times \frac{2}{3} =$

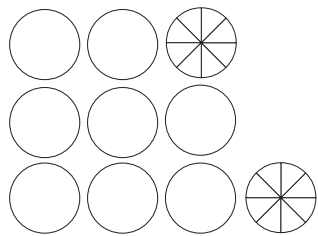
b)   $5 \times \frac{3}{5} =$

c)   $3 \times \frac{5}{8} =$

- 2) This diagram shows the partitioning method of multiplying an integer by a mixed number. Shade in the diagram to show the correct answer and write it down as a simplified mixed number.

a)   $2 \times 3 \frac{4}{7} =$

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

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

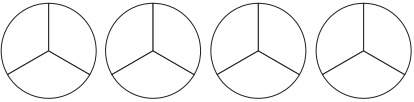
- 3) Solve these calculations by converting the mixed number to an improper fraction then multiplying


a)  $3 \times 2 \frac{3}{7} =$       b)  $4 \times 3 \frac{3}{4} =$

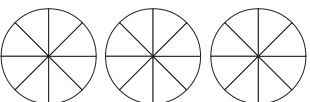
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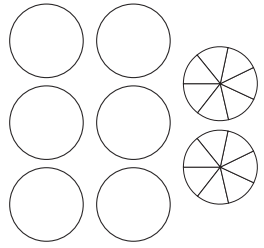
Shade in the diagram to show the correct answer and write it down as a simplified mixed number.

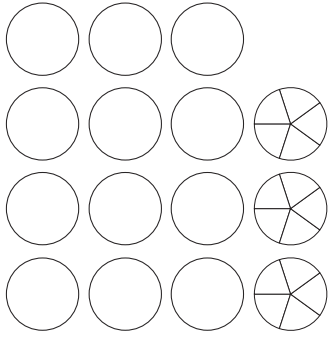
a)   $4 \times \frac{2}{3} =$

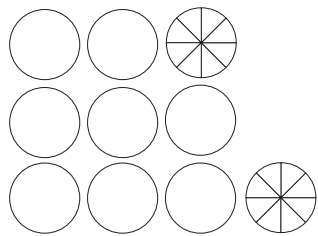
b)   $5 \times \frac{3}{5} =$

c)   $3 \times \frac{5}{8} =$

- 2) This diagram shows the partitioning method of multiplying an integer by a mixed number. Shade in the diagram to show the correct answer and write it down as a simplified mixed number.

a)   $2 \times 3 \frac{4}{7} =$

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

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

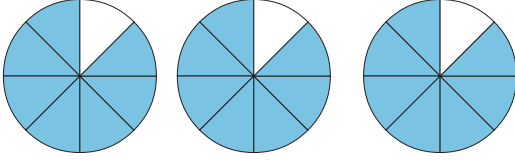
- 3) Solve these calculations by converting the mixed number to an improper fraction then multiplying

a)  $3 \times 2 \frac{3}{7} =$       b)  $4 \times 3 \frac{3}{4} =$

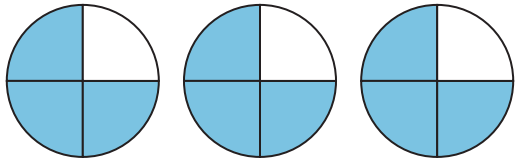
- 1) I am allowed to spend up to one hour watching TV in the evening. On each of Monday, Wednesday and Saturday, I spent 50 minutes out of my allowed hour watching TV.



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- 2) Which calculation is the odd one out and why?

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

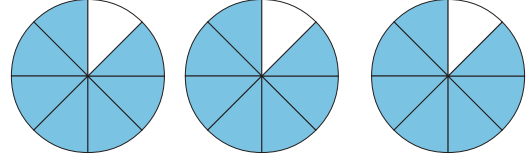
$$5 \times 8 \frac{2}{3} =$$

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

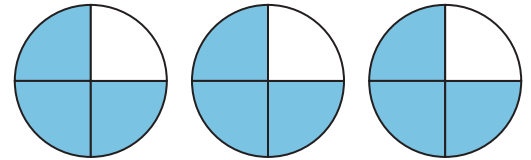
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- a)  $? \times ? \frac{?}{?} =$  greatest possible answer. (Don't make an improper fraction within a mixed number.)

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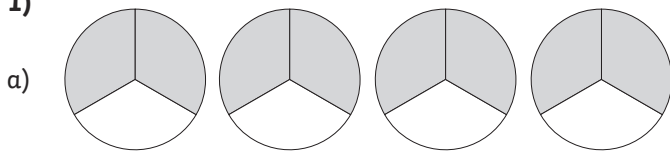
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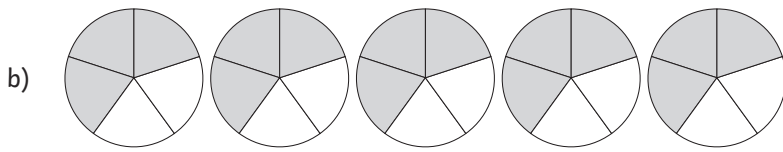
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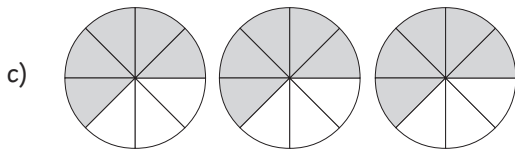
1)



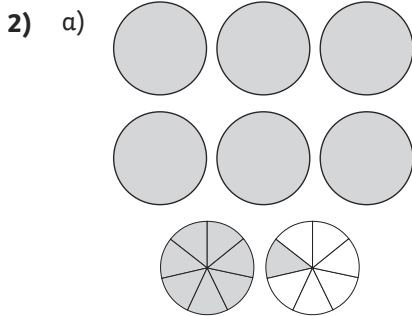
$$4 \times \frac{2}{3} = \frac{2}{3} \text{ or } 4 \frac{2}{3}$$



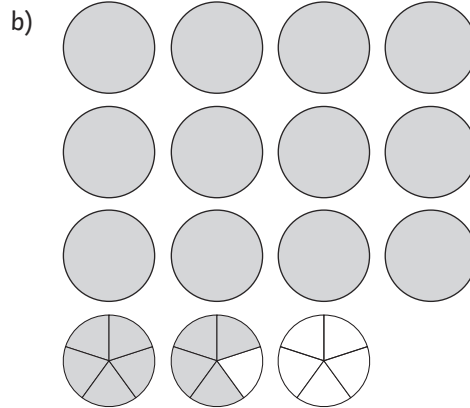
$$5 \times \frac{3}{5} = \frac{15}{5} \text{ or } 3$$



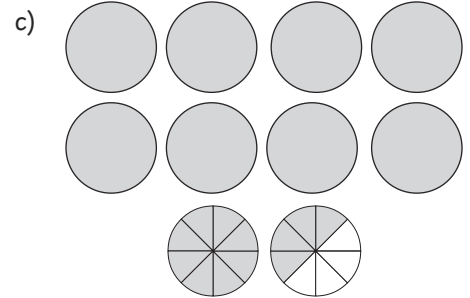
$$3 \times \frac{5}{8} = \frac{15}{8} \text{ or } 1 \frac{7}{8}$$



$$2 \times 3 \frac{4}{7} = 7 \frac{1}{7}$$



$$3 \times 4 \frac{3}{5} = 13 \frac{4}{5}$$



$$2 \times 4 \frac{6}{8} = 9 \frac{1}{2}$$

3) a)  $3 \times 2 \frac{3}{7} = 3 \times \frac{17}{7} = \frac{51}{7} \text{ or } 7 \frac{2}{7}$

b)  $4 \times 3 \frac{3}{4} = 4 \times \frac{15}{4} = \frac{60}{4} \text{ or } 15$

- 1) Each complete whole represents 60 mins. Therefore each  $\frac{1}{6}$  portion of the whole is worth 10 mins  $\frac{5}{6}$  of a whole is therefore worth 50 minutes.



This diagram is incorrect as each complete whole represents 60 minutes therefore  $\frac{3}{4}$  of a whole will represent 45 mins.

$$2) \quad 5 \times 2 \frac{4}{6} = 13 \frac{1}{3}$$

$$5 \times 8 \frac{2}{3} = 43 \frac{1}{3}$$

$$5 \times 4 \frac{4}{5} = 24$$

- 1) Answer: She is buying potatoes for 6 classes:

$$6 \times 3 \frac{4}{7} = 21 \frac{3}{7}$$

$$2) \text{ a) } 6 \times 5 \frac{4}{1} = 38$$

b) Multiple answers are possible

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

$$5 \times 2 \frac{3}{6} = 22 \frac{1}{2}$$

