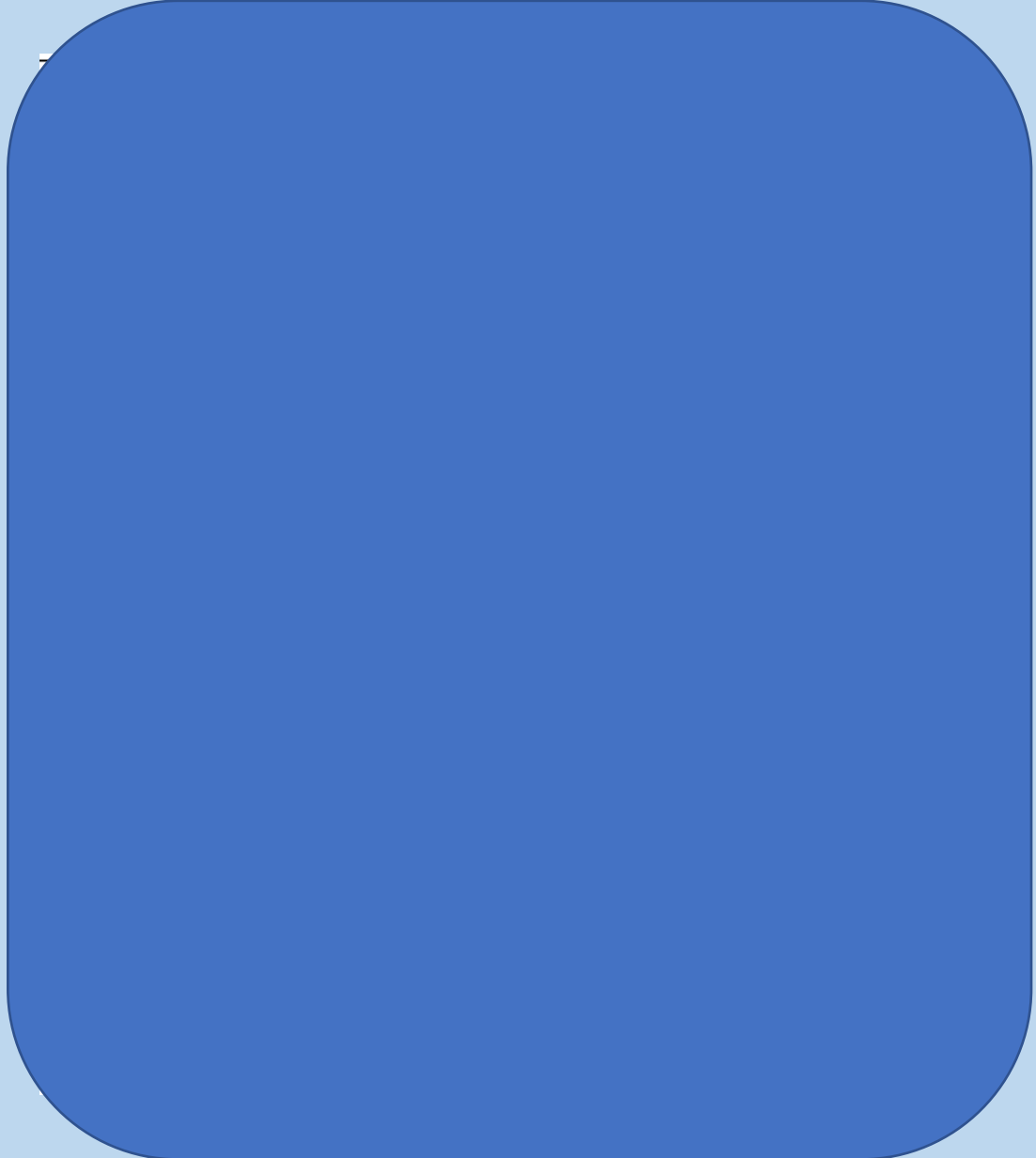


Spring Term 1. Week 2.
Tuesday: Mrs Brown's Group
Fractions.

Fractions

How can we solve these questions adding fractions?



1) $\frac{3}{6} + \frac{7}{8} + \frac{7}{12} =$

2) $\frac{7}{8} + \frac{2}{4} + \frac{5}{8} =$

3) $\frac{2}{9} + \frac{4}{18} + \frac{1}{3} =$

4) $\frac{12}{14} + \frac{6}{7} + \frac{1}{7} =$

5) $\frac{2}{4} + \frac{3}{12} + \frac{4}{8} =$

6) $\frac{2}{9} + \frac{3}{27} + \frac{2}{9} =$

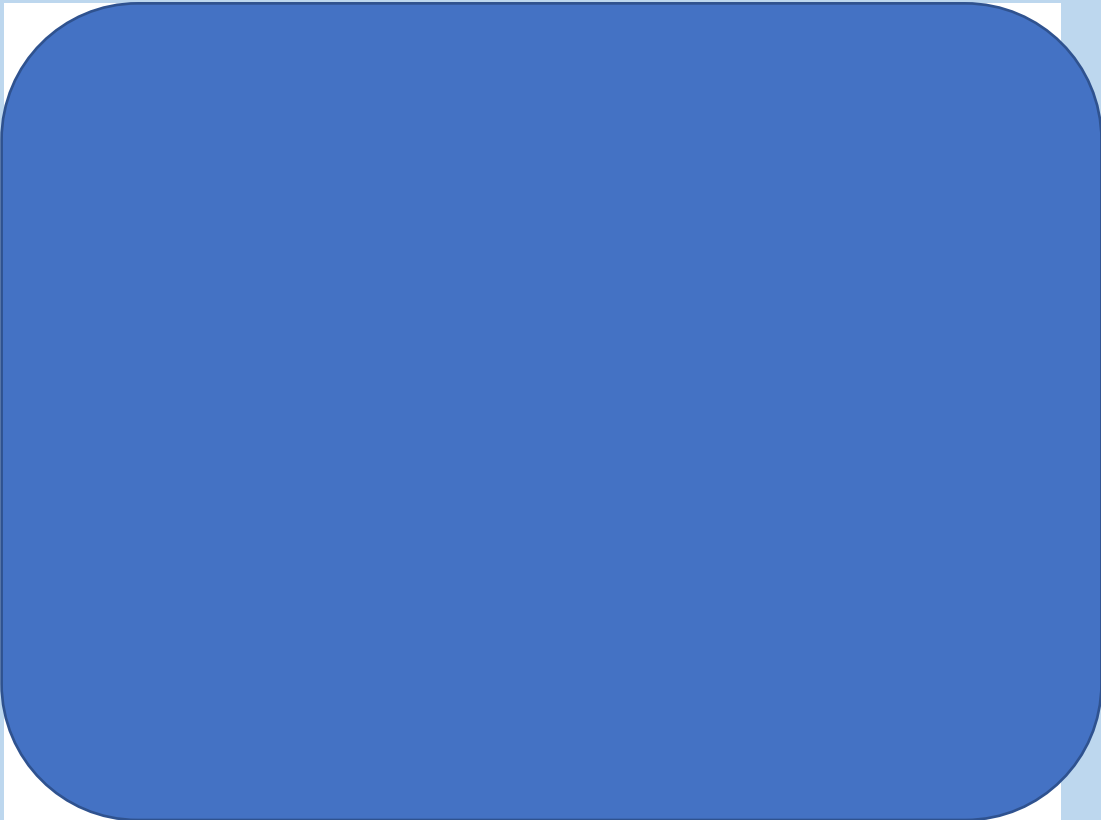
7) $\frac{7}{13} + \frac{9}{26} + \frac{12}{26} =$

8) $\frac{9}{20} + \frac{7}{10} + \frac{7}{20} =$

9) $\frac{11}{12} + \frac{1}{3} + \frac{3}{4} =$

10) $\frac{1}{3} + \frac{5}{6} + \frac{2}{4} =$

How can we solve these subtraction fraction questions?



$$1) \quad \frac{17}{18} - \frac{2}{6} - \frac{2}{9} =$$

$$2) \quad \frac{14}{16} - \frac{1}{4} - \frac{2}{8} =$$

$$3) \quad \frac{23}{24} - \frac{1}{3} - \frac{2}{12} =$$

$$4) \quad \frac{14}{16} - \frac{2}{4} - \frac{1}{8} =$$

$$5) \quad \frac{22}{24} - \frac{2}{6} - \frac{2}{12} =$$

$$6) \quad \frac{14}{16} - \frac{2}{4} - \frac{2}{8} =$$

TARGET To find a whole quantity given the quantity represented by a unit fraction.

To find a unit fraction of a whole quantity we divide the quantity by the denominator. (Ex. 1.)
To find the whole quantity given the quantity represented by a unit fraction we use the inverse method, which is multiplication. (Ex. 2, 3 and 4.)

Example 1

$$\frac{1}{5} \text{ of } 75\text{p}$$
$$75\text{p} \div 5 = 15\text{p}$$

Answer 15p

Example 2

$$\frac{1}{5} \text{ of } \square = 15\text{p}$$
$$15\text{p} \times 5 = 75\text{p}$$

Answer 75p

Example 3

$$\frac{1}{8} \text{ of } \square = 60\text{g}$$
$$60\text{g} \times 8 = 480\text{g}$$

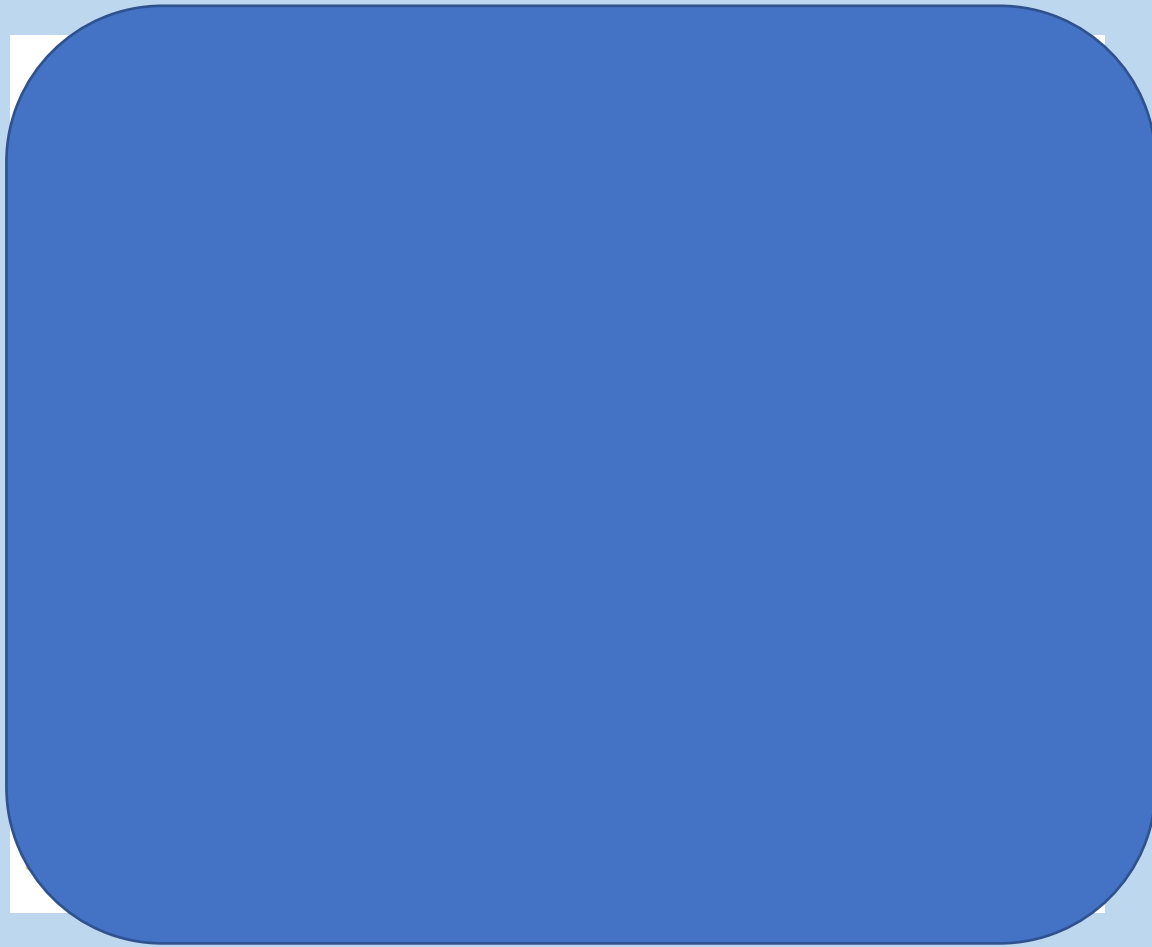
Answer 480g

Example 4

$$\frac{1}{100} \text{ of } \square = 0.125 \text{ litres}$$
$$0.125 \text{ litres} \times 100 = 12.5$$

Answer 12.5 litres

How can we solve these multiplying fraction questions?



1) $\frac{1}{2}$ of 19 =

2) $\frac{4}{14}$ of 25 =

3) $\frac{4}{14}$ of 19 =

4) $\frac{1}{2}$ of 29 =

5) $\frac{9}{18}$ of 26 =

6) $\frac{2}{6}$ of 26 =

7) $\frac{2}{9}$ of 12 =

8) $\frac{2}{3}$ of 4 =

9) $\frac{5}{18}$ of 2 =

10) $\frac{10}{12}$ of 12 =

TARGET

To multiply pairs of fractions, writing the answer in its simplest form.

Examples

METHOD 1

Multiply and then cancel.

$$1 \quad \frac{3}{4} \times \frac{8}{9} = \frac{\cancel{24} 2}{\cancel{36} 3}$$

$$2 \quad \frac{5}{12} \times \frac{3}{10} = \frac{\cancel{15}}{\cancel{120}} = \frac{\cancel{3}}{\cancel{24}} = \frac{1}{8}$$

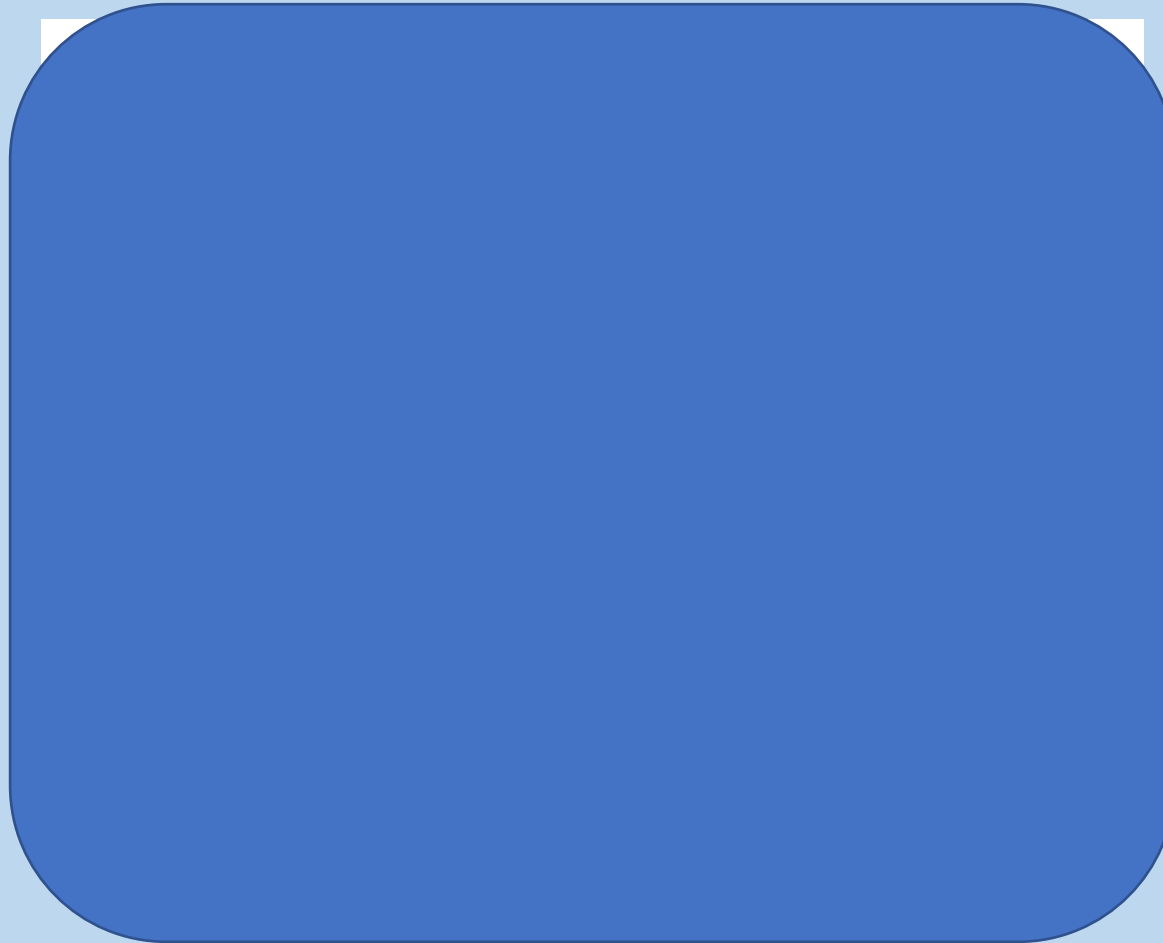
METHOD 2

Cancel and then multiply.

$$1 \quad \frac{\cancel{3}^1}{\cancel{4}_1} \times \frac{\cancel{8}^2}{\cancel{9}_3} = \frac{2}{3} \text{ (cancel 3 and 9, 4 and 8)}$$

$$2 \quad \frac{\cancel{5}^1}{\cancel{12}_4} \times \frac{\cancel{3}^1}{\cancel{10}_2} = \frac{1}{8} \text{ (cancel 5 and 10, 3 and 12)}$$

How can we solve these multiplying mixed number fraction questions?



$$1) \quad 4\frac{1}{3} \times 4\frac{1}{4} =$$

$$2) \quad 4\frac{1}{5} \times 3\frac{7}{10} =$$

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

$$4) \quad 4\frac{4}{5} \times 3\frac{1}{10} =$$

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

$$6) \quad 2\frac{3}{10} \times 4\frac{1}{2} =$$

$$7) \quad 3\frac{3}{5} \times 4\frac{1}{3} =$$

$$8) \quad 3\frac{3}{5} \times 3\frac{1}{3} =$$

$$9) \quad 3\frac{1}{2} \times 2\frac{2}{5} =$$

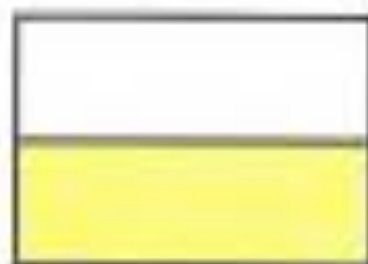
$$10) \quad 2\frac{1}{2} \times 4\frac{3}{5} =$$

TARGET To divide fractions by whole numbers.

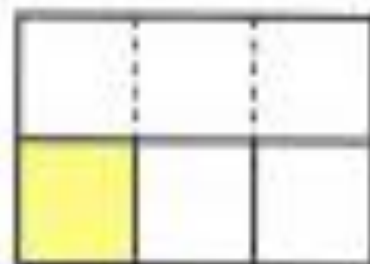
To divide a fraction by a whole number multiply the denominator by the divisor.

Examples

$$\frac{1}{2} \div 3 = \frac{1}{2 \times 3} = \frac{1}{6}$$



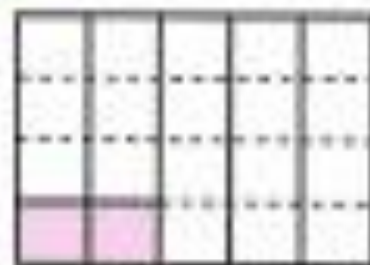
$$\frac{1}{2} \div 3 = \frac{1}{6}$$



$$\frac{2}{5} \div 4 = \frac{2}{5 \times 4} = \frac{2}{20} = \frac{1}{10}$$



$$\frac{2}{5} \div 4 = \frac{2}{20} = \frac{1}{10}$$



How can we solve these multiplying mixed number fraction questions?



B

Simplify before multiplying.

$$1 \quad \frac{3}{4} \div 9 = \frac{3^1}{4 \times 9^3} = \frac{\square}{\square}$$

$$2 \quad \frac{8}{9} \div 2 = \frac{8}{9 \times 2} = \frac{\square}{\square}$$

$$3 \quad \frac{2}{3} \div 7 = \frac{\square}{\square \times 7} = \frac{\square}{\square}$$

$$4 \quad \frac{9}{10} \div 12 = \frac{9}{\square \times \square} = \frac{\square}{\square}$$

$$5 \quad \frac{3}{5} \div 5 = \frac{\square}{\square \times \square} = \frac{\square}{\square}$$

So how well did you get on?

Which fraction calculations did you find most tricky?

Which calculations do you think you need more practice with?