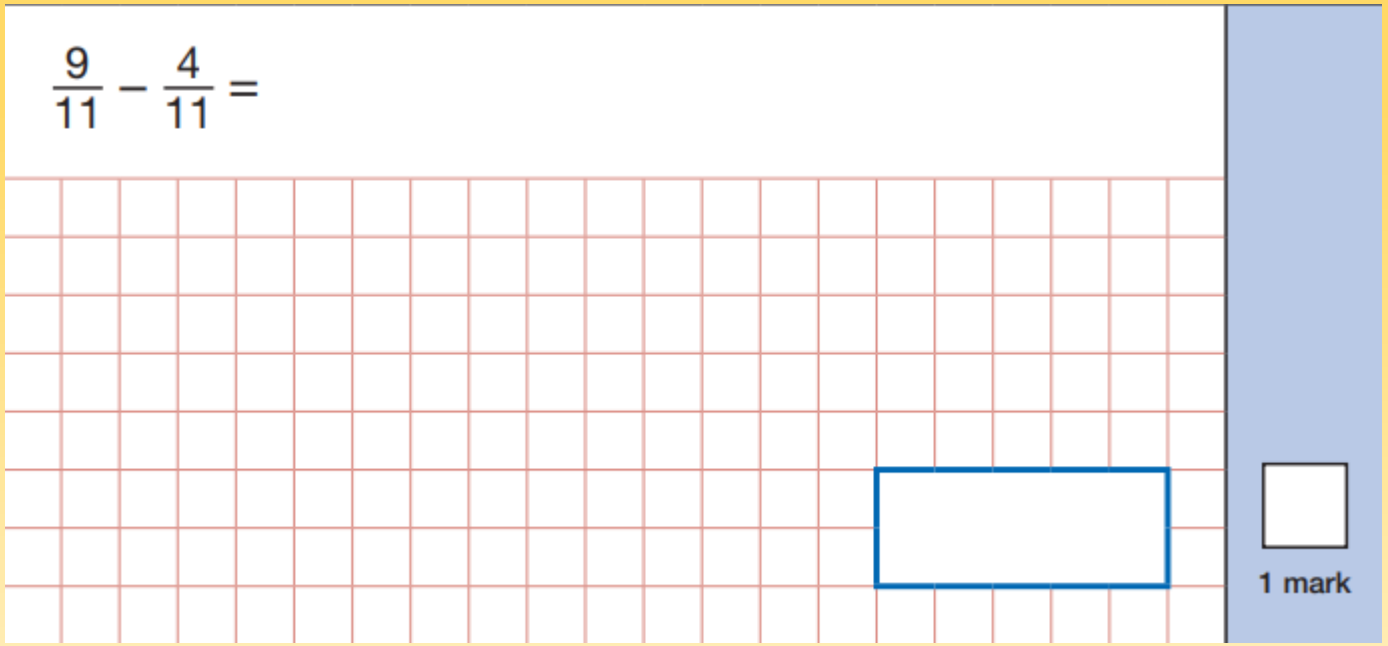
This Powerpoint is a revision tool for how to complete arithmetic with fractions. I know you have all done this over the Spring term but it is definitely worth looking over before completing your independent work.

I have included some practice questions as part of the Powerpoint. Please don't feel like you have to complete these unless you think they'll be helpful before you complete your other independent work.

Although there looks like there is lot's to remember in this Powerpoint, remember you've all done this before. Just slowly read through it and re-cap the fractions arithmetic work.

$\frac{9}{11} - \frac{4}{11} =$



1 mark

$$\frac{9}{11} - \frac{4}{11} = \frac{5}{11}$$

Why can we just calculate with the numerators?

Answer the following questions:

$\frac{7}{11} - \frac{4}{11}$

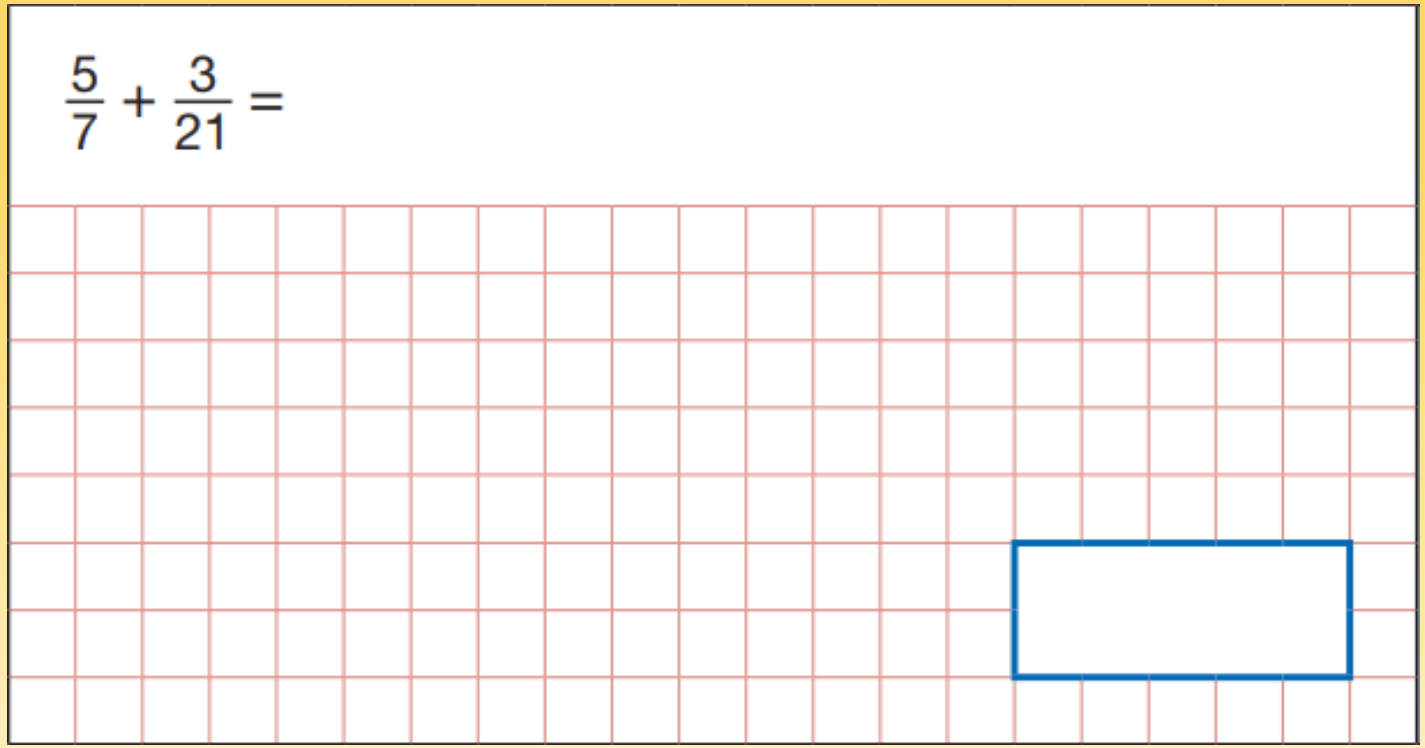
$\frac{4}{5} - \frac{3}{5}$

$\frac{4}{11} + \frac{4}{11}$

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

Use the method we have just looked at.

Does it matter which way round you calculate with the fractions? Why/ why not?



$$\frac{5}{7} + \frac{3}{21} =$$

$$\frac{5}{7}\ {}^{\times 3}_{\times 3} + \frac{3}{21} =$$

$$\frac{15}{21} + \frac{3}{21} = \frac{18}{21} = \frac{6}{7}$$

Answer the following questions:

$\frac{7}{10} - \frac{3}{5}$

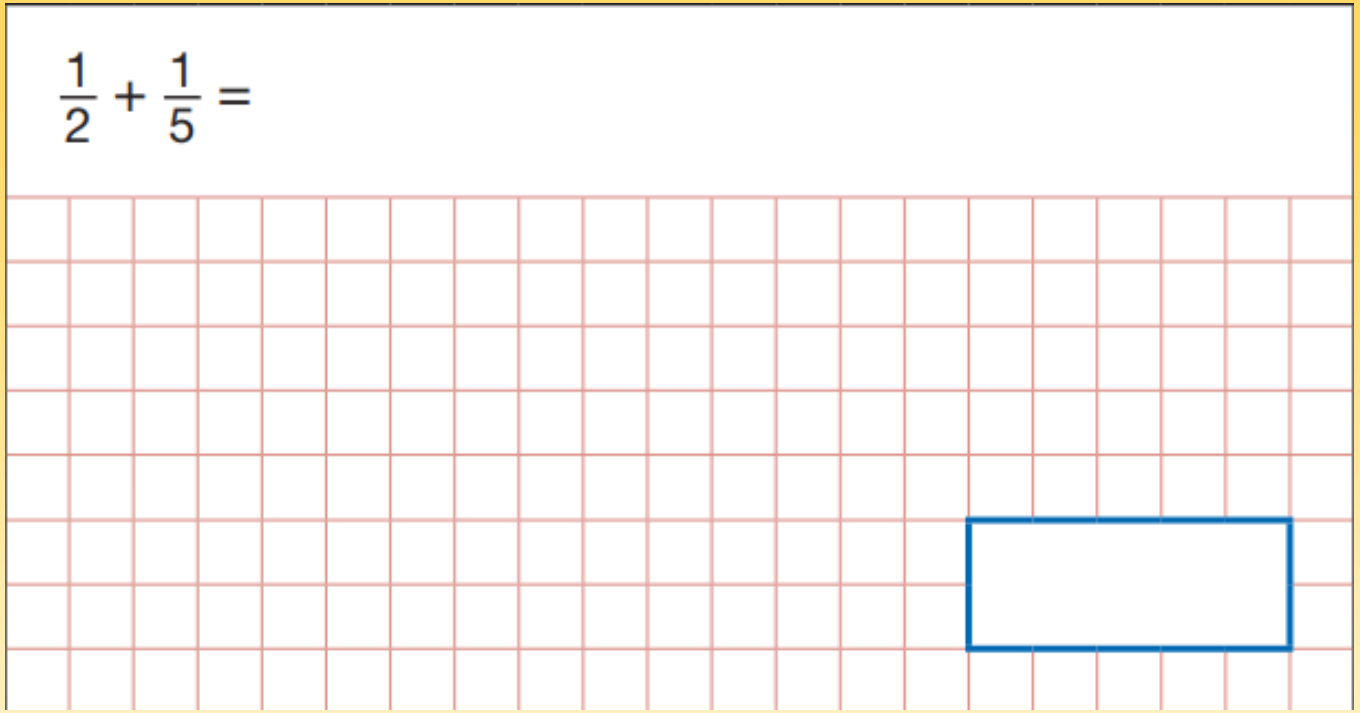
$\frac{3}{4} - \frac{7}{16}$

$\frac{2}{3} + \frac{4}{9}$

$\frac{1}{2} + \frac{8}{18}$

Use the method we have just looked at.
Think which one is a multiple of the other

Why do we only change one fraction and not both?



$$\frac{1}{2} + \frac{1}{5} =$$

$$\frac{1}{2}\,{}^{\times 5}_{\times 5} + \frac{1}{5}\,{}^{\times 2}_{\times 2} =$$

$$\frac{5}{10} + \frac{2}{10} = \frac{7}{10}$$

Answer the following questions:

$\frac{7}{10} - \frac{2}{3}$

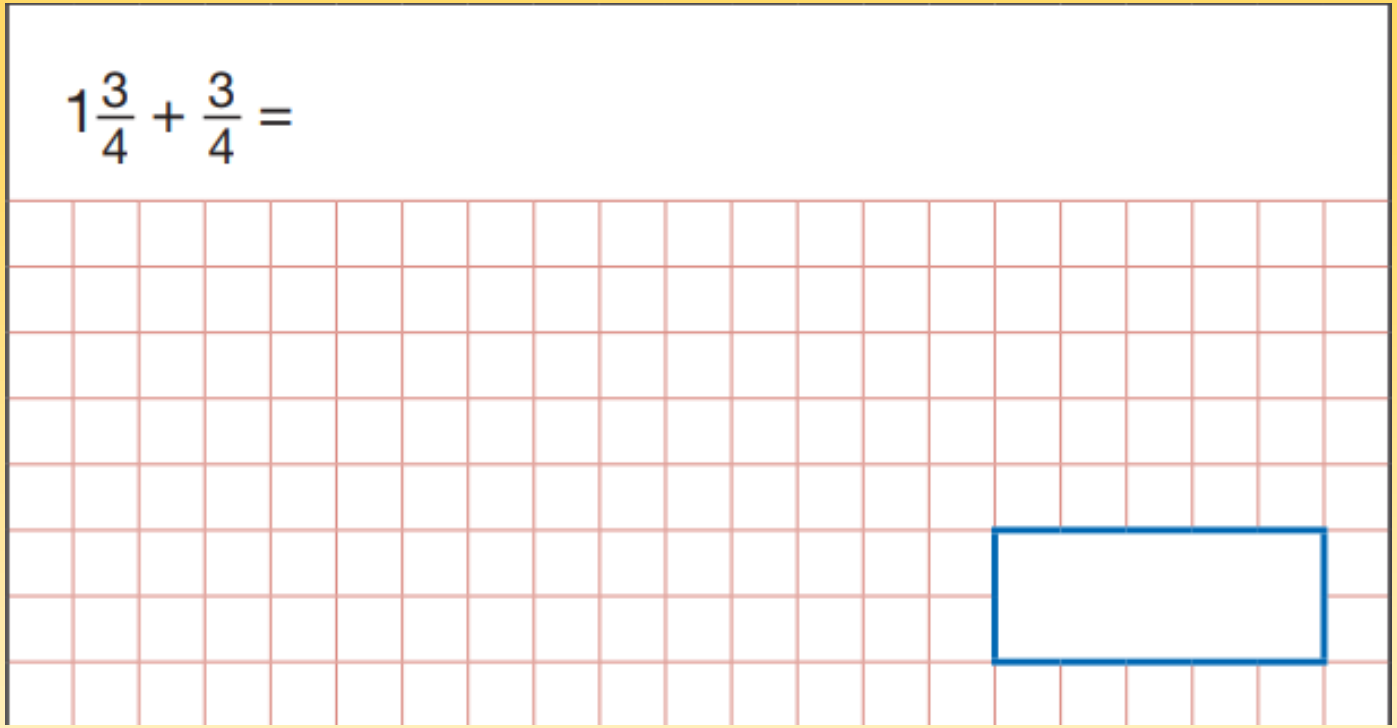
$\frac{3}{5} - \frac{1}{3}$

$\frac{5}{7} + \frac{3}{4}$

$\frac{4}{6} + \frac{2}{4}$

Use the method we have just looked at.

How else could you solve the final calculation? How many ways can you find?



$$1\frac{3}{4} + \frac{3}{4} =$$

$$\frac{7}{4} + \frac{3}{4} = \frac{10}{4}$$

$$\frac{10}{4} = 2\frac{2}{4} = 2\frac{1}{2}$$

Answer the following questions:

$2\frac{3}{4} + \frac{3}{4} =$

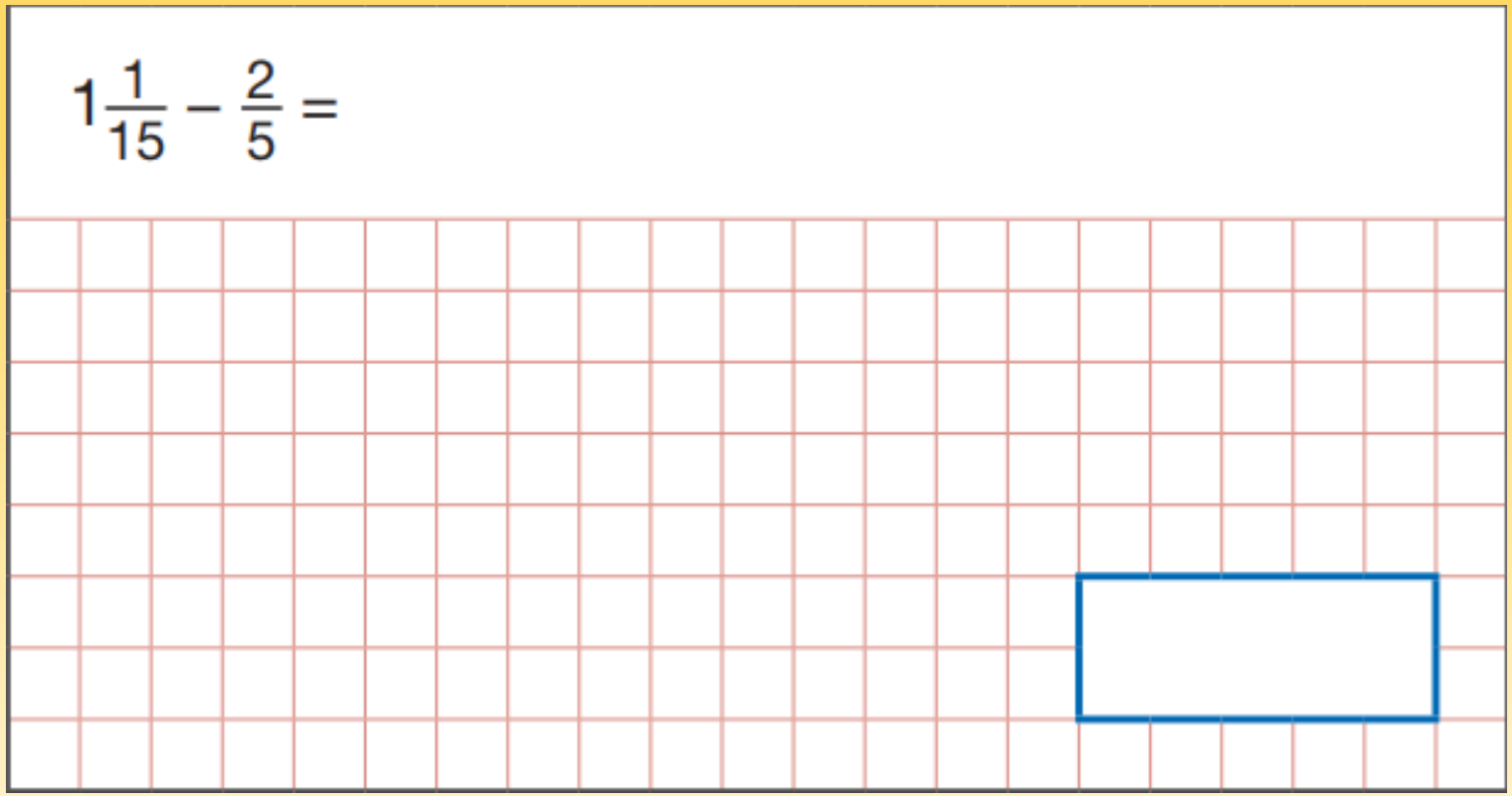
$1\frac{4}{5} + \frac{2}{5} =$

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

$5\frac{3}{7} - \frac{6}{7} =$

Make the mixed number an improper fraction

Why is it easier to make it an improper fraction before calculating?



$$1\frac{1}{15} - \frac{2}{5} =$$

$$\frac{16}{15} - \frac{2}{5} \overset{\times 3}{\underset{\times 3}{}} =$$

$$\frac{16}{15} - \frac{6}{15} = \frac{10}{15} = \frac{2}{3}$$

Answer the following questions:

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

$4\frac{2}{3} + \frac{12}{15} =$

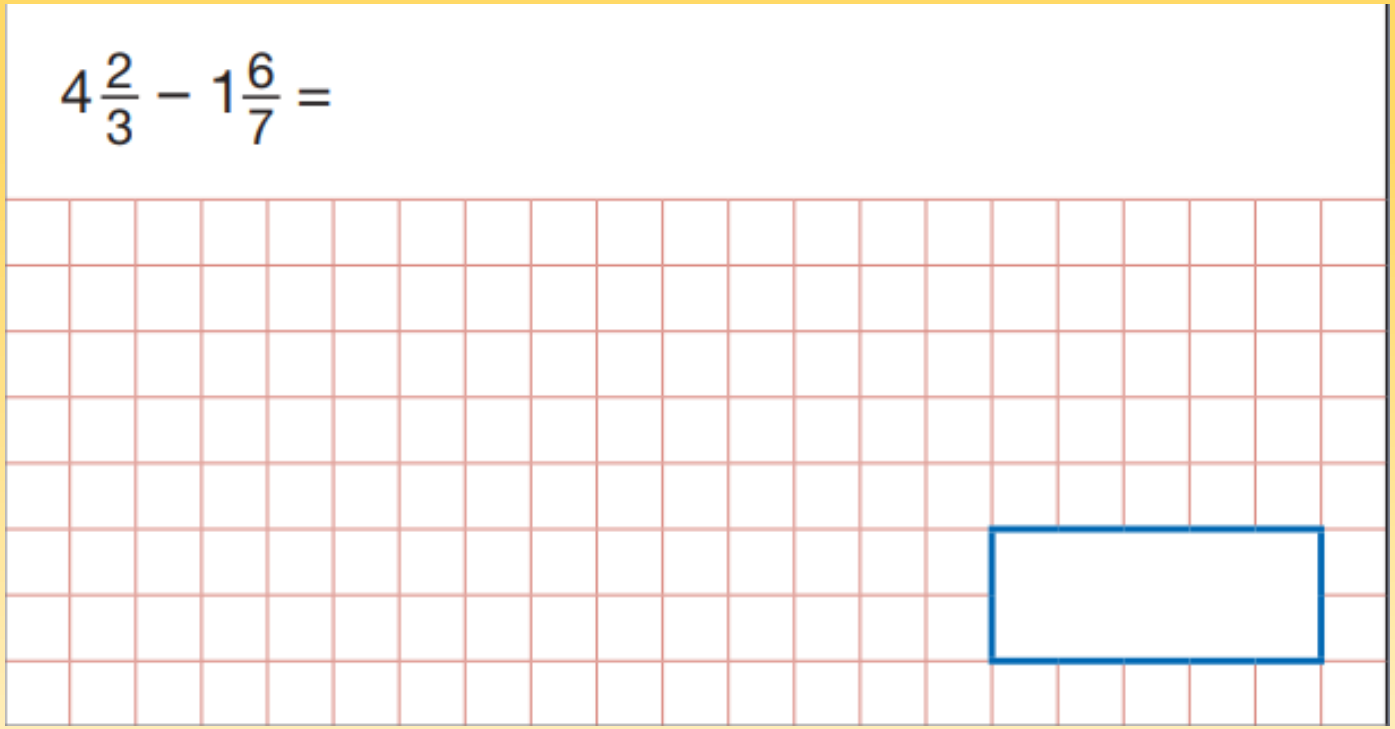
$1\frac{1}{15} - \frac{3}{5} =$

$5\frac{3}{7} - \frac{16}{21} =$

Make the mixed number an improper fraction

What mistakes are people most likely to make?

$4\frac{2}{3} - 1\frac{6}{7} =$



$$4\frac{2}{3} - 1\frac{6}{7} =$$

$$\frac{14}{3}\ {}^{\times 7}_{\times 7} - \frac{13}{7}\ {}^{\times 3}_{\times 3} =$$

$$\frac{98}{21} - \frac{39}{21} = \frac{49}{21} = 2\frac{7}{21}$$

How else could we solve this question?

Answer the following questions:

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

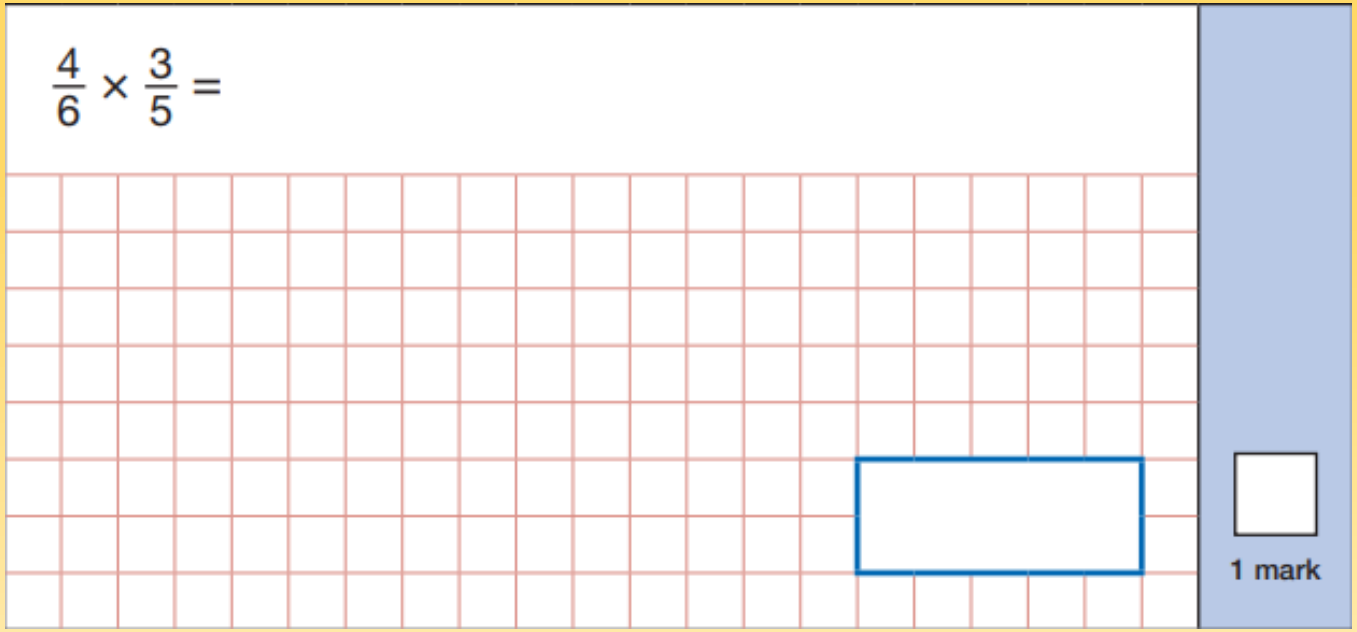
$3\frac{2}{9} - 1\frac{3}{5} =$

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

$1\frac{4}{11} + 1\frac{3}{5} =$

Use your preferred method from before

Can you find a simpler way to solve these questions? If so, how?



$$\frac{4}{6} \quad x \quad \frac{3}{5}$$

$$4 \times 3 = 12$$

$$6 \times 5 = 30$$

$$\frac{4}{6} \quad x \quad \frac{3}{5} \quad = \quad \frac{12}{30} \quad = \quad \frac{2}{5}$$

Answer the following questions:

$\frac{1}{3} \times \frac{5}{6}$

$\frac{2}{5} \times \frac{5}{12}$

$\frac{3}{4} \times \frac{5}{8}$

$\frac{10}{15} \times \frac{12}{7}$

Numerator x numerator
Denominator x denominator

Which ones can you simplify?
How do you know?

$\frac{2}{5}$ × 140 =

1 mark

$\frac{2}{5}$ x 140

2 x 140 = 280

$\frac{2}{5}$ x 140 = $\frac{280}{5}$

280 ÷ 5 = 56

Answer the following questions:

$\frac{3}{5}$ x 400

$\frac{3}{4}$ x 400

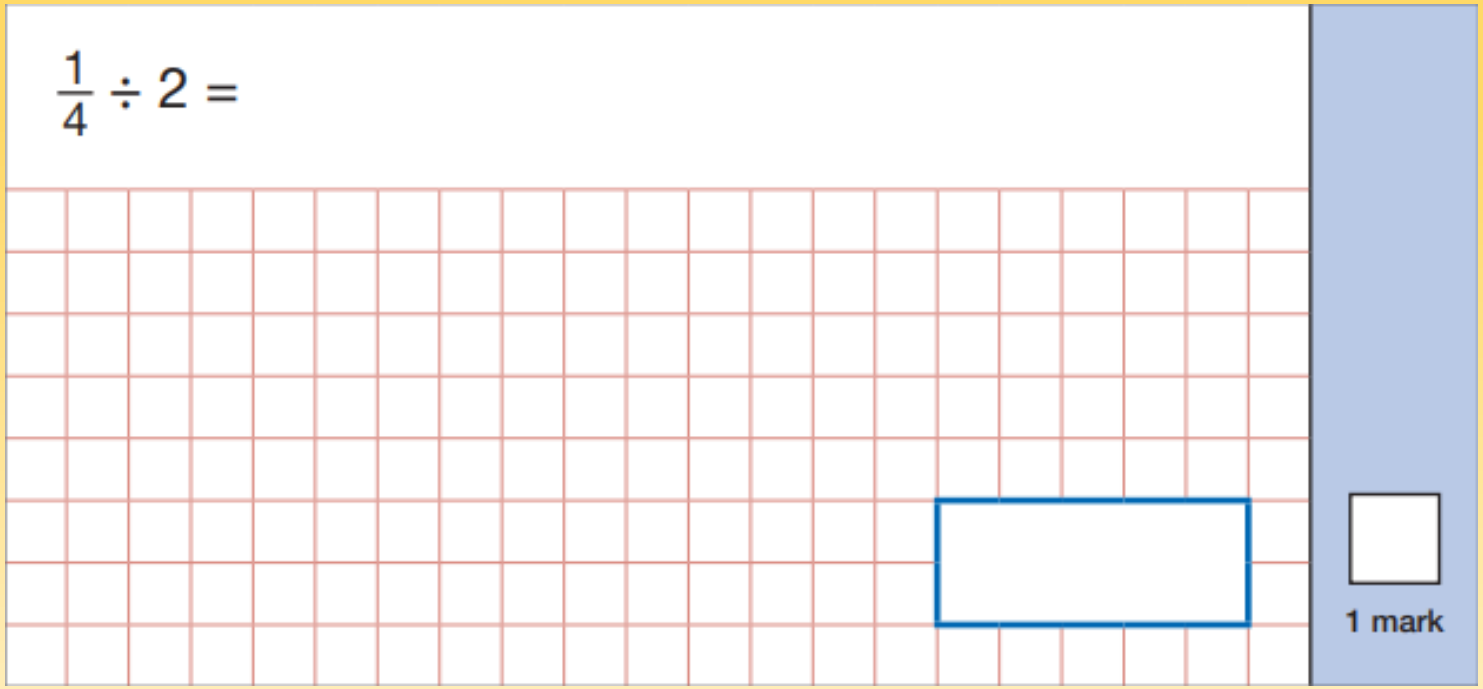
$\frac{4}{10}$ x 320

$\frac{4}{5}$ x 180

Whole number x numerator

Why do we need to change the fraction from an improper one?

$\frac{1}{4} \div 2 =$



$$\frac{1}{4} \div 2$$

$$4 \times 2 = 8$$

$$\frac{1}{4} \div 2 = \frac{1}{8}$$

Answer the following questions:

$\frac{4}{5} \div 4$

$\frac{3}{4} \div 5$

$\frac{4}{9} \div 6$

$\frac{7}{12} \div 4$

Whole number x denominator

How else could you solve the first question? Why?