

Have a go at these arithmetic calculations.

$$1. \quad 5691 + 735 =$$

$$2. \quad 2\frac{1}{2} - \frac{3}{5} =$$

$$3. \quad 1643 \times 89 =$$

$$4. \quad \frac{5}{8} \div 4 =$$

Complete as many of these as you can in 3 minutes:

1. _____ = 35% of £400

2. $843 \div 14 =$

3. Write all of these options that are equivalent to 0.4.

4%

$\frac{4}{5}$

$\frac{40}{100}$

40%

$\frac{4}{10}$



Lesson 17

Learning Question:

Can you use common factors to simplify fractions; and use common multiples to express fractions in the same denomination?

Success Criteria:

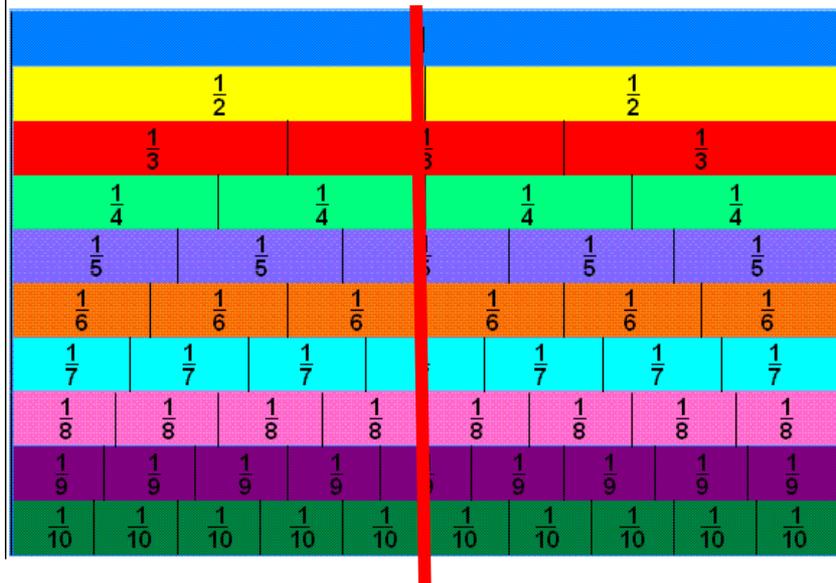
- Look at fraction and see if it is divisible by 2.
- If not find another common multiple.
- Divide the denominator and the numerator by the common multiple.

REMEMBER fractions that can be simplified to the same amount are EQUIVALENT.

Vocabulary

Fraction
Proper fraction
Improper fraction
Mixed number
Numerator
Denominator
Unit fraction
Equivalent
Cancel
Simplify

Fraction chart



We can see that $\frac{1}{2}$ is the same as $\frac{2}{4}$, $\frac{3}{6}$, $\frac{4}{8}$ and $\frac{5}{10}$.

These are EQUIVALENT FRACTIONS.

Find me an equivalent of:

$\frac{2}{8}$

$\frac{3}{9}$

$\frac{8}{10}$

$\frac{9}{9}$

$\frac{4}{6}$

Simplified Fractions

To simplify a fraction, we find an equivalent fraction which uses the **smallest numbers possible**.

We do this by **dividing**.

$$\frac{24 \div 2}{40 \div 2} = \frac{12}{20}$$

or
$$\frac{24 \div 4}{40 \div 4} = \frac{6}{10}$$

or
$$\frac{24 \div 8}{40 \div 8} = \frac{3}{5}$$

We need to know our tables for this!

Ask yourself, what can I divide both 24 and 40 by?

8 is the biggest number we can divide both by and $\frac{3}{5}$ uses the smallest possible numbers as we cannot divide them by anything else.

Look at this one

$$\frac{28}{56}$$

The first thing I notice is that 28 and 56 are both in the 7 times table. So I'm going to divide both numbers by 7.

$$\frac{28}{56} \div 7 = \frac{4}{8}$$

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$$\frac{28}{56} \div 7 = \frac{4}{8}$$

Is this simplified?

NO!

I can still divide both numbers by 4.

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

Have a go at simplifying
these fractions:

$$\frac{48}{60}$$

$$\frac{21}{63}$$

Answers on the next page.

Answers:

$$\frac{48}{60} \div 12 = \frac{4}{5}$$

$$\frac{21}{63} \div 7 = \frac{3}{9} \quad \div 3 = \frac{1}{3}$$

Remember!

Look at both numbers of the fraction and find their common times table.

If you don't know your times tables, you will have to guess, check and improve.

Your task:

Complete Simplifying Fractions
worksheet.

Plenary:

Make these fractions equivalent:

$$1.) \quad \frac{1}{5} = \frac{\boxed{}}{25}$$

$$2.) \quad \frac{1}{\boxed{}} = \frac{4}{16}$$