Each day covers one maths topic. It should take you about 1 hour or just a little more.

1. Start by reading through the Learning Reminders. They come from our PowerPoint slides.

2. Tackle the questions on the Practice Sheet. There might be a choice of either Mild (easier) or Hot (harder)!
   Check the answers.

3. Finding it tricky? That’s OK... have a go with a grown-up at A Bit Stuck?

4. Think you’ve cracked it? Whizzed through the Practice Sheets? Have a go at the Investigation...
Learning Reminders

Identify equivalent fractions.

What fractions can you see on the Fraction Wall that are equivalent to \(\frac{1}{2}\)?

\(\frac{2}{4}, \frac{3}{6}, \frac{4}{8}, \frac{5}{10}\) and \(\frac{6}{12}\) are all equivalent to \(\frac{1}{2}\).

The numerator is always half the denominator!
Write fractions in their simplest form.

We can write \(\frac{6}{12}\) as \(\frac{1}{2}\). This is called writing the fraction in its simplest form.

We can find a fraction’s simplest form by dividing the numerator and denominator by the same number; in this case 6.

What is the simplest equivalent fraction to \(\frac{2}{6}\)?
What can you divide both 2 and 6 by?

\(\frac{2}{6} = \frac{1}{3}\)
You can check on the Fraction Wall!

What is the simplest equivalent fraction to \(\frac{6}{8}\)?
What can you divide both 6 and 8 by?

\(\frac{6}{8} = \frac{3}{4}\)
Divide both the numerator and denominator by 2.
### Learning Reminders

**Identify equivalent fractions.**

What fractions can you see that are equivalent to $\frac{1}{3}$?

$\frac{2}{6}, \frac{3}{9}$ and $\frac{4}{12}$ are all equivalent to $\frac{1}{3}$. What do you notice about the denominator and numerator of all those fractions?

We can make fractions equivalent to $\frac{1}{3}$ by multiplying the numerator and denominator by the same number!
**Practice Sheet Mild**

**Fractions practice**

Draw a circle round all the fractions which are equivalent to \(\frac{1}{2}\).

Draw a square round all the fractions which are equivalent to \(\frac{1}{4}\).

\[
\begin{array}{cccc}
\frac{2}{4} & \frac{3}{6} & \frac{5}{20} \\
\frac{4}{8} & \frac{12}{12} & \frac{10}{20} \\
\frac{8}{16} & \frac{20}{20} & \frac{4}{16} \\
\frac{20}{40} & \frac{4}{10} & \frac{3}{12} \\
\frac{6}{12} & \frac{10}{40} & \frac{2}{3} \\
\frac{4}{8} & \frac{12}{12} & \frac{10}{20} \\
\frac{2}{6} & \frac{8}{12} & \frac{5}{10} \\
\frac{6}{12} & \frac{5}{10} & \frac{9}{18} \\
\frac{2}{5} & \frac{5}{10} & \frac{4}{16} \\
\frac{3}{6} & \frac{3}{6} & \frac{4}{16}
\end{array}
\]

**Challenge**

Write at least two more fractions equivalent to \(\frac{1}{2}\) and two more equivalent to \(\frac{1}{4}\).
Practice Sheet Hot
Fractions practice

Use the fraction wall to help you to write pairs of equivalent fractions.

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2/8 ≡ 1/4  
6/8 ≡ 3/4  
3/9 ≡ 1/3  
6/9 ≡ 2/3

2/12 ≡ 1/6  
3/12 ≡ 1/4  
4/12 ≡ 1/3  
6/12 ≡ 1/2

4/12 ≡ 2/6  
10/12 ≡ 5/6  
8/12 ≡ 2/3  
9/12 ≡ 3/4

Challenge

How many more rows would we need to draw on the fraction wall to complete this pair of equivalent fractions: 5/? ≡ 10/3?
Practice Sheet Answers

Fractions practice (Mild)

\[
\begin{array}{cccc}
\frac{2}{4} & \frac{3}{4} & \frac{6}{12} & \frac{5}{20} \\
\frac{20}{40} & \frac{2}{8} & \frac{4}{10} & \frac{3}{12} \\
\frac{2}{6} & \frac{8}{12} & \frac{2}{5} & \frac{9}{18} \\
\frac{8}{16} & \frac{10}{20} & \frac{5}{10} & \frac{4}{16}
\end{array}
\]

Challenge

Other fractions equivalent to \( \frac{1}{2} \) are \( \frac{6}{12}, \frac{7}{14}, \frac{8}{16}, \frac{11}{22}, \) etc.

Other fractions equivalent to \( \frac{1}{3} \) are \( \frac{6}{18}, \frac{7}{21}, \frac{8}{24}, \frac{9}{27}, \) etc.

Fractions practice (Hot)

\[
\begin{array}{cccc}
\frac{2}{8} & \frac{1}{4} & \frac{3}{8} & \frac{3}{12} \\
\frac{2}{12} & \frac{1}{6} & \frac{4}{12} & \frac{1}{3} \\
\frac{4}{12} & \frac{2}{6} & \frac{5}{12} & \frac{2}{3} \\
\frac{8}{12} & \frac{6}{12} & \frac{8}{12} & \frac{9}{12} \\
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Challenge

We would need two more rows: \( \frac{1}{13} \) and \( \frac{1}{14} \) s to give \( \frac{5}{7} \equiv \frac{10}{14} \).
A Bit Stuck?
The Half family

Work in pairs

Things you will need:
• A pencil
• A fraction wall
• Coloured pencil
• Scissors
• Glue sticks

What to do:
• Colour in $\frac{1}{2}$ of the strip divided into halves.
• Cut the fraction wall into strips.
• Lay each strip one at a time next to the strip of halves until you find a number of fractions which are the same size as $\frac{1}{2}$. Colour in half of this strip.
• Repeat for each strip until you have found all the fractions which are equivalent (same size) to $\frac{1}{2}$.
• Stick these fractions under one another.
• Write the pairs of equivalent fractions.

Learning outcomes:
• I can find fractions which are equivalent to $\frac{1}{2}$.
• I am beginning to find fractions which are equivalent to $\frac{1}{4}$.

S-t-r-e-t-c-h:
Cut another fraction wall into strips. Colour in one quarter of the strips of quarters. Look for fractions equivalent to $\frac{1}{4}$, stick under strips of quarters and write the pairs of equivalent fractions.

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Investigation

Best score for me!

1. Use this line of fraction cards.

\[
\begin{array}{ccccccccccc}
\frac{1}{2} & \frac{1}{3} & \frac{2}{3} & \frac{1}{4} & \frac{3}{4} & \frac{1}{5} & \frac{3}{5} & \frac{1}{6} & \frac{5}{6} & \frac{1}{8} & \frac{3}{8} \\
\end{array}
\]

2. Choose a fraction, e.g. \(\frac{3}{4}\).
3. Look at the first square below.
4. Identify two numbers, which, one over the other, make an equivalent fraction to the one chosen, e.g. \(\frac{9}{12}\).
5. Write the equivalent fraction below the appropriate fraction card.
6. Cross out these two numbers on the first square.
7. Choose another fraction, and repeat, e.g. choose \(\frac{1}{3}\), write \(\frac{4}{20}\) and cross out 4 and 20.
8. Keep going like this. You cannot use a crossed-out number on your square for a second time!

What sort of fractions is it best to choose first? Why?

Why is it not sensible to choose \(\frac{1}{2}\) first?

Which numbers on the square are never used?