2.4.20

LO: To convert mixed numbers to improper fractions.

Teach it

$\frac{7}{4}$

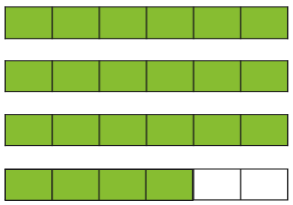
$1\frac{3}{4}$

To convert a **mixed number** to an **improper fraction**, you must **multiply** the whole number by the denominator (eg. 1 x 4 = 4) and then add the numerator (eg. 4 + 3 = 7). The answer becomes the numerator and the denominator stays the same.

Do it

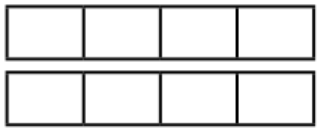
1. Draw the bar models in your maths book, then colour them to represent the mixed number shown. Write down the mixed number fraction, then use the bar model to help you write down the equivalent **improper** fraction.

Eg.

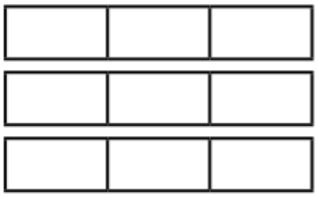


$3\frac{4}{6} = \frac{22}{6}$

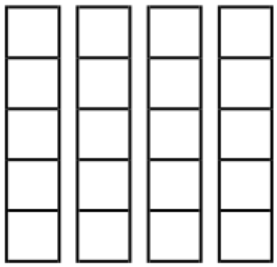
a) $1\frac{3}{4}$ is equivalent to $\frac{\square}{\square}$



b) $2\frac{1}{3}$ has the same value as $\frac{\square}{\square}$



c) $3\frac{2}{5}$ is equivalent to $\frac{\square}{\square}$



2. Now, convert these mixed numbers into improper fractions. Use drawings, or even something like Lego, to help you.

a) $2\frac{5}{6} = \frac{\square}{\square}$

b) $4\frac{1}{4} = \frac{\square}{\square}$

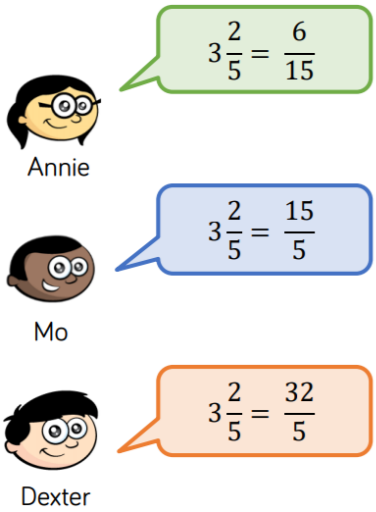
c) $5\frac{2}{5} = \frac{\square}{\square}$

d) $6\frac{2}{3} = \frac{\square}{\square}$

Secure it

3. Three children have incorrectly converted $3\frac{2}{5}$ into an improper fraction.

   What mistake has each child made?



Deepen it

4. Fill in the missing numbers.

   How many different possibilities can you find for each of the fraction equations?

$$2\frac{\square}{8} = \frac{\square}{8}$$

$$2\frac{\square}{5} = \frac{\square}{5}$$

Compare the number of possibilities that you found. How can you relate the number of solutions to the denominator in the fraction equation?