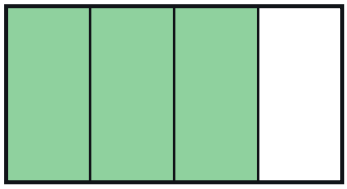
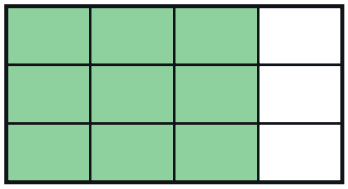
Name _____ Date _____

Expanding Fractions

PART 1 Finer parts

1 The first rectangle shows $\frac{3}{4}$. We added 3 rows to the second rectangle.





Each part was split into _____ smaller parts. Coloured parts: _____, all parts: _____.

$$\frac{3}{4} = \frac{3 \cdot \square}{4 \cdot \square} = \frac{\square}{\square}$$

Remember

To expand a fraction means to **multiply the numerator and the denominator by the same natural number**. The value of the fraction does not change.

$$\frac{2}{5} = \frac{2 \cdot 4}{5 \cdot 4} = \frac{8}{20}$$

2 Expand the fractions by the given number.

Fraction	by 2	by 3	by 5	by 10
$\frac{2}{3}$	$\frac{\square}{\square}$	$\frac{\square}{\square}$	$\frac{\square}{\square}$	$\frac{\square}{\square}$
$\frac{3}{4}$	$\frac{\square}{\square}$	$\frac{\square}{\square}$	$\frac{\square}{\square}$	$\frac{\square}{\square}$
$\frac{4}{5}$	$\frac{\square}{\square}$	$\frac{\square}{\square}$	$\frac{\square}{\square}$	$\frac{\square}{\square}$

Name _____ Date _____

PART 2 A given denominator and comparing

3 Expand the fractions so that they have the given denominator.

$\frac{2}{3} = \frac{\square}{12}$ $\frac{3}{5} = \frac{\square}{20}$ $\frac{5}{6} = \frac{\square}{18}$

$\frac{1}{4} = \frac{\square}{100}$ $\frac{7}{10} = \frac{\square}{100}$ $\frac{3}{8} = \frac{\square}{24}$

4 Compare the fractions by expanding them to the same denominator. Write <, > or =.

$\frac{2}{3} \bigcirc \frac{3}{4} \rightarrow \frac{\square}{12} \bigcirc \frac{\square}{12}$ $\frac{5}{6} \bigcirc \frac{7}{9} \rightarrow \frac{\square}{18} \bigcirc \frac{\square}{18}$

$\frac{3}{8} \bigcirc \frac{1}{3} \rightarrow \frac{\square}{24} \bigcirc \frac{\square}{24}$ $\frac{4}{6} \bigcirc \frac{6}{9} \rightarrow \frac{\square}{18} \bigcirc \frac{\square}{18}$

5 Are the fractions equivalent? Circle YES or NO.

$\frac{2}{3}$ and $\frac{3}{4}$ **YES / NO** $\frac{4}{6}$ and $\frac{6}{9}$ **YES / NO**

$\frac{3}{5}$ and $\frac{9}{15}$ **YES / NO** $\frac{2}{7}$ and $\frac{3}{8}$ **YES / NO**

6 Ivan says: "I can expand $\frac{1}{2}$ so that its denominator is 15." Is he right? Explain.