

Use this sheet **WHEN** you've completed the main worksheet and want a challenge. Remember to use your blue book if you have it to show your workings. The questions were resourced from White Rose Maths and Twinkl Diving into Mastery.

1.

Explore these equivalent fraction number sequences. Predict what comes next and explain the pattern.



a) $\frac{1}{4} = \frac{2}{8} = \frac{4}{16} =$

b) $\frac{1}{5} = \frac{10}{50} = \frac{100}{500} =$

c) $\frac{1}{2} = \frac{2}{4} = \frac{6}{12} = \frac{24}{48} =$

- a. $\frac{8}{32}$ The numerator and denominator are multiplied by 2 each time.
- b. $\frac{1000}{5000}$ the numerator and denominator are multiplied by 10 each time.
- c. $\frac{120}{240}$ The numerator and denominator are multiplied by 1 more each time.

2.

Tommy is finding equivalent fractions.

$$\frac{3}{4} = \frac{5}{6} = \frac{7}{8} = \frac{9}{10}$$

He says,



I did the same thing to the numerator and the denominator so my fractions are equivalent.




Do you agree with Tommy?
Explain your answer.

Unfortunately, Tommy is wrong.

He has added 2 to each the denominator and numerator but these won't make them equivalent.
For example $\frac{3}{4}$ is not equivalent to $\frac{7}{8}$

3.

The children have been using multiplication to calculate equivalent fractions for $\frac{1}{6}$. Check their work. Correct and explain their mistakes.

Child	Equivalent Fraction	✓ or X	Explanation
 Selma $\frac{1}{12} = \frac{1}{6}$	Child	Equivalent Fraction	✓ or X
 Logan $\frac{3}{12} = \frac{1}{6}$	Child	Equivalent Fraction	✓ or X
 Beth $\frac{4}{24} = \frac{1}{6}$	Child	Equivalent Fraction	✓ or X

Child	Equivalent Fraction	✓ or X	Explanation
Selma $\frac{1}{12} = \frac{1}{6}$	$\frac{1}{12}$	X	Selma has multiplied the denominator by 2 but has forgotten to multiply the numerator by 2.
Logan $\frac{3}{12} = \frac{1}{6}$	$\frac{3}{12}$	X	Logan has multiplied the numerator by 3 and the denominator by 2.
Beth $\frac{4}{24} = \frac{1}{6}$	$\frac{4}{24}$	✓	Beth is correct. She has multiplied the numerator and the denominator by 4 giving her an equivalent fraction of $\frac{4}{24}$.