Master Comparing Fractions Greater Than 1

Rationale

In this step, pupils build upon their understanding of fractions greater than 1 by comparing improper fractions and mixed numbers on a number line beyond 1. They will use their knowledge of equivalent fractions to accurately identify and position fractions on number lines to compare their relative sizes. They will begin by comparing fractions that fall on intervals before moving on to number lines where some fractions fall between intervals.

Pupils will develop their learning by comparing fractions without the support of representations. They will instead use their understanding of common multiples to convert fractions to share a common denominator.

Key Stem Sentences

- ___ is greater than / less than / equal to ___
- ___ > / < / = ___

Key Vocabulary

- denominator / numerator
- equivalent
- fraction
- greater than / less than / equal to

Key Representations

Number lines

$\dfrac{14}{8}$ is greater than $\dfrac{37}{24}$

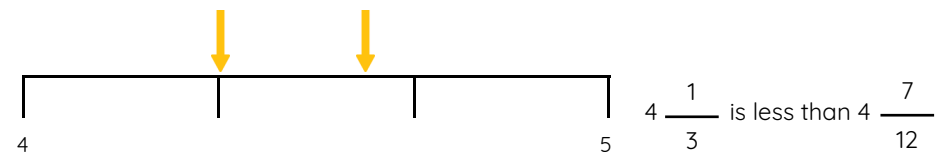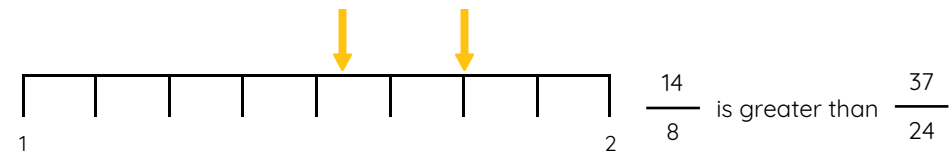$4\dfrac{1}{3}$ is less than $4\dfrac{7}{12}$

Common Errors or Misconceptions

- Pupils may represent the fractions incorrectly on the number line.
- Pupils may compare the numerators or denominators without converting to a common denominator. For example, 1 and three-quarters is less than 1 and five-eighths.

Pupils will FLOURISH if they can...

- compare fractions greater than 1 whose denominators are multiples of the same number.
- use number lines to represent the comparative size of two improper fractions and/or mixed numbers.
- convert denominators to a common multiple to compare.
- begin to explain their understanding using their own words and representations.