YR6 Overview - Master Comparing and Ordering Fractions (by Numerator)

Rationale

In this step, pupils build on their understanding of comparing and ordering fractions by denominators. They will compare and order fractions by numerators that share a common multiple and are multiples of the same number (other than 1). For example, 2 and 4 share the common multiple of 4 and they are both multiples of 2. Pupils will understand that when the numerators are the same, the greater the denominator, the smaller the fraction and vice-versa. They will find a common numerator and convert the fractions the same numerator before using the denominators to compare and order the fractions.

Key Stem Sentences

- When the numerators are the same, the ___ the denominator, the ___ the fraction.
- ___ is greater than / less than ___ .
- ___ is the greatest / smallest fraction.

Key Vocabulary

- greater than / less than
- greatest / smallest
- numerator / denominator
- common multiple / denominator

Key Representations

Number lines

Four-sevenths is less than eight-twelfths.

$$\frac{4}{7} < \frac{8}{12}$$

common numerator: 8
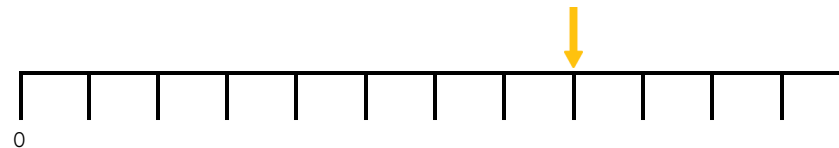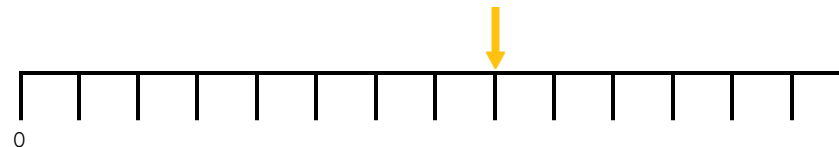
$$\frac{8}{14} < \frac{8}{12}$$

Misconceptions

- Pupils may convert both fractions to a common numerator or use multiplication only when converting.
- Pupils may compare / order fractions based on their numerators or denominators before they have been converted.

Pupils will FLOURISH if they can show fluency and reason mathematically by...

- comparing and ordering fractions with numerators that are multiples of the same number (other than 1).
- finding a common numerator and converting the fractions to the same numerator.
- proving their understanding using stem sentences.