

Addition and subtraction of fractions with multiples of the same denominator, giving the answer as a mixed number

Make 2 circles. Cut one circle into sixths and another into twelfths. Compare the segments, demonstrating that two twelfths are the same as one sixth, four twelfths are the same as two sixths, and so on.

Hold up various sixth fractions and, on an agreed signal, ask the children to call out how many twelfths they represent.

Hold one sixth in one hand and eleven twelfths in the other. Discuss the problem of adding them as they are not the same. Give the children an opportunity to discuss how to solve the problem. Agree that the one sixth can be changed for two twelfths.

$$\frac{1}{6} + \frac{11}{12} = \frac{2}{12} + \frac{11}{12}$$

The twelfths are now straightforward to add, giving $\frac{13}{12}$.

Exchange $\frac{12}{12}$ for 1, giving $1\frac{1}{12}$.

Emphasise that the answer should be written as a mixed number, not an improper fraction.