KS3 Unit 40 Mixed Fractions

Topic/Skill	Definition/Tips	Example
1. Mixed Number	A number formed of both an **integer part** and a **fraction part**.	$3\frac{2}{5}$ is an example of a mixed number.
2. Adding or Subtracting Fractions	Change to an improper fraction first. Find the **LCM of the denominators** to find a common denominator. Use equivalent fractions to change each fraction to the **common denominator**. Then just **add or subtract the numerators** and keep the **denominator the same**.	$$2\frac{2}{3} + 3\frac{4}{5}$$ $$= \frac{8}{3} + \frac{19}{5}$$ Multiples of 3: 3, 6, 9, 12, **15**.. Multiples of 5: 5, 10, **15**.. LCM of 3 and 5 = 15 $$\frac{8}{3} = \frac{40}{15}$$ $$\frac{19}{5} = \frac{57}{15}$$ $$\frac{40}{15} + \frac{57}{15} = \frac{97}{15} = 6\frac{7}{15}$$
3. Multiplying Fractions	Change to an improper fraction first. **Multiply** the **numerators** together and **multiply** the **denominators** together.	$$1\frac{3}{8} \times 3\frac{2}{9} = \frac{11}{8} \times \frac{29}{9} = \frac{319}{72} = 4\frac{31}{72}$$
4. Dividing Fractions	Change to an improper fraction first. **'Keep it, Flip it, Change it – KFC'** Keep the first fraction the same Flip the second fraction upside down Change the divide to a multiply Multiply by the reciprocal of the second fraction.	$$4\frac{3}{4} \div \frac{5}{6} = \frac{19}{4} \times \frac{6}{5} = \frac{114}{20} = 5\frac{7}{10}$$