Knowledge Organiser - Mathematics — Fractions, Brackets

	Topic	Information	Examples	Sparx Clip
1	Writing and comparing fractions	To find a fraction of an amount - **Divide** by the **denominator**, **times** by the **Numerator** Equivalent fractions - Fractions which represent the **same value**. To simplify fractions - Divide the numerator and denominator by the **highest common factor**.	Find $\frac{2}{5}$ of £60 $60 \div 5 = 12 \quad 12 \times 2 = 2$ $\frac{2}{5} = \frac{4}{10} = \frac{20}{50} = \frac{60}{150}$ *etc.* $\frac{20}{45} = \frac{4}{9}$	M227, M698, M158, M939, M410, M671, M335, M601
2	Adding and subtracting fractions	Use **equivalent fractions** to make the **denominators equal** then **add or subtract** the **numerators.** **Simplify** the **answer if possible,** for **extra marks**	$\frac{1}{2} + \frac{1}{3} \quad \frac{3}{6} + \frac{2}{6} = \frac{5}{6}$ $\frac{1}{3} - \frac{1}{4} \quad \frac{4}{12} - \frac{3}{12} = \frac{1}{12}$	M227, M698, M671, M410, M601, M835, M931
3	Single brackets	Multiply all the **terms inside the bracket** by the **number or term outside the bracket.**	2(x+5) = 2x + 10 6(x-3) = 6x-18	M813, M795, M698, M637, M237, M792, M100