

KPI 7.11 - 7.14 Fractions

1) Fraction	Part of a whole. The result of dividing one integer by a second (non-zero) integer.	$\frac{3}{4}$ Numerator How many equal parts do you have? Denominator How many equal parts is the whole divided into?
2) Proper Fraction	The numerator is smaller than the denominator e.g. $\frac{5}{6}$	3) Improper fraction The numerator is greater than or equal to the denominator e.g. $\frac{11}{8}$
4) Mixed number	A whole number combined with a fraction. e.g. $2\frac{1}{3}$	5) Simplify a fraction Divide both the numerator and the denominator of the fraction by their HCF. $\frac{6}{14} = \frac{3}{7}$
6) Writing one number as a fraction of another	Write £15 as a fraction of £25. $\frac{15}{25} = \frac{3}{5}$	E.g. Fractions equivalent to $\frac{3}{5}$ : $\frac{3}{5} \times \frac{2}{2} = \frac{6}{10}$ $\frac{3}{5} \times \frac{3}{3} = \frac{9}{15}$ $\frac{3}{5} \times \frac{4}{4} = \frac{12}{20}$ $\frac{3}{5} \times \frac{10}{10} = \frac{30}{50}$
7) Equivalent Fractions	Fractions which have the same value. The numerator and the denominator can be multiplied or divided by the same number.	$3 = \frac{3}{1} = \frac{15}{5}$
8) Convert an integer to a fraction	Whole numbers are an integer with a denominator of 1.	$\frac{15}{7} = 2\frac{1}{7}$
9) Converting an improper fraction to a mixed number	Divide the numerator by the denominator. Write down the whole number of the answer and the remainder as the numerator of the fraction. The denominator of the mixed number is the same as the denominator of the improper fraction.	$2\frac{3}{4} = \frac{8}{4} + \frac{3}{4} = \frac{11}{4}$
10) Converting a mixed number to an improper fraction	Change the whole number into a fraction (same denominator) and add on the fraction part.	$\frac{2}{7} + \frac{10}{35} = \frac{14}{35} + \frac{10}{35} = \frac{24}{35}$
11) Add/Subtract Fractions	Make the denominators the same (find the LCM). Use equivalent fractions to change each fraction to the common denominator. Add/subtract the numerators only.	$\frac{2}{3}, \frac{5}{6}, \frac{4}{5}$ $\frac{20}{20}, \frac{25}{30}, \frac{24}{30}$ $\frac{30}{30}, \frac{4}{4}, \frac{5}{5}$ $\frac{2}{3}, \frac{4}{5}, \frac{5}{6}$
12) Order Fractions	Find the lowest common denominator. Write equivalent fractions with the LCD. Order from the smallest to largest numerator. Rewrite original fractions in the new order.	14) Fractions of an amount We divide the amount by the denominator and then multiply the result by the numerator. E.g. $\frac{2}{7}$ of 35 $35 \div 7 = 5$ $2 \times 5 = 10$
13) Convert fractions to decimals	Use short division. E.g. to convert $\frac{3}{8}$ to a decimal: $8 \overline{) 3.64}$	