

# Partial fractions

If we take a fraction  $\frac{a}{b}$ , and write it as the sum of two or more fractions whose denominators are factors of  $b$ , then we have expressed it as a set of *partial fractions*.

For example, if we write

$$\frac{1}{6} = \frac{1}{2} - \frac{1}{3}$$

then  $1/2$  and  $-1/3$  are called partial fractions.

Similarly, we can write

$$\frac{3}{(x-1)(x+2)} = \frac{1}{x-1} - \frac{1}{x+2}.$$