

Simplifying Algebra

Collecting Like Terms

Like terms are terms that have the same variable and power. $3a$ and $4a$ are like terms so we can add them to give $7a$, they are both a 's. $8b$ and $9b$ are also like terms, we can add them to give $17b$.

Collecting Like Terms

We have to identify which numbers are like terms
We can see that there are two a terms, and two b terms.

$$6a + 3b - 4a - 5b$$

We always look at the sign before the term.

$$\text{So, } 6a - 4a = 2a, \text{ and } 3b - 5b = -2b$$

Therefore the answer is:

$$2a - 2b$$

Multiplying terms

In the simplest form of algebra we do not write the multiplication sign. We simplify $3 \times a$ to $3a$, we simplify $a \times b$ to ab and we simplify $a \times a$ to a^2

Rules of Algebra

$$x \times x = x^2$$

$$2 \times x = 2x$$

$$x \times y = xy$$

$$2x \times 3y = 6xy$$

$$x \times x \times x = x^3$$