polynomial.
Expressions, such as $2x$, $x+3$ and $x-5$, have similar terms. ~~If an expression contain two or more terms it is called a polynomial~~ having the same power of the same letter (here x). In ~~the~~ like manner, $2x^2-8$, $5x^2$ and x^2+3 have similar terms (here x^2).
In algebraic addition, such expression are combined
Algebraic addition Ex 1: Jack has 3 apples, 2 pears and 5 bananas, and Henry has 2 apples, 1 pear, and 3 bananas, together they have 5 apples, 3 pears and 8 bananas. Using a for apples, p for pears, and b for bananas:

$$3a+5b+2p+2a+1p+3b=5a+3p+8b$$

Just as we usually combine only like objects in arithmetic, we add only similar terms in algebra.
Ex 2: $3x-5y+8z+2z+3y-x=2x-2y+10z$
Ex 3: $x^2+5x-8+2x^2-7x+3=3x^2-2x-3$

26. Multiplication of binomials:
Sometimes is necessary to multiply two binomial expressions in order to solve a quadratic equation.
Ex 1: What is the side of a square such that when one side is diminished by 3 units and the other increased by 5 units, the area of the resulting rectangle is 48 square units? The algebraic statement of this problem is

$$(x-3)(x+5)=48$$

Let $x=4$ then $(4-3)(4+5)=1\times 9=9$. Suppose we had multiplied each number in the first parenthesis by each in the second and added the results instead of combining within parenthesis first. Then we should have had:

$$4^2+4\times 5-3\times 4-3\times 5=16+20-12-15=36-27=9$$

which indicates the method for multiplying the two expressions

$$(x-3)(x+5)=x^2+5x-3x-15=2x+x^2-15$$

book: $x+2x^2-15$

Since $3\times 5=15$, it is said to have two factors, 3 and 5. Similarly, since $(x-3)(x+5)=x^2+2x-15$, $x^2+2x-15$ is said to have two factors, $(x-3)$ and $(x+5)$.

{to that point zzz...}