7-7 notes

Difference of two squares

Square of a sum:

The square of a+b is the square of a plus twice the product of a and b plus the square of b.

Example:

$$(a+b)^{2}=\left(a+b\right)\left(a+b\right)= a^{2}+2ab+b^{2}$$

Square of a difference:

The square of a-b is the square of a minus twice the product of a and b plus the square of b

Example:

$$(a-b)^{2}=\left(a-b\right)\left(a-b\right)= a^{2}-2ab+b^{2}$$

The product of a sum and a difference:

The product of a+b and a-b is the square of a minus the square of b.

Example:

$$\left(a+b\right)\left(a-b\right)= a^{2}- b^{2}$$