

Name: _____

Date: _____

Expand:

$$(x + 5)^2 =$$

$$(x - 1)^2 =$$

$$(x - 2)^2 =$$

$$(x - 3)^2 =$$

$$(x + 1)^2 =$$

$$(x + 2)^2 =$$

$$(x + 3)^2 =$$

$$(2x - 1)^2 =$$

$$(3x - 1)^2 =$$

$$(4x - 1)^2 =$$

$$(2x + 1)^2 =$$

$$(3x + 1)^2 =$$

$$(4x + 1)^2 =$$

What patterns do you see in the trinomials and their factors above?

How could you use the patterns to factor these trinomials?

$$4x^2 + 20x + 25 \quad \text{and} \quad 9x^2 - 12x + 4$$

This type of polynomial is called a _____.

Example: Factor these trinomials

1. $36x^2 + 12x + 1$

2. $16 - 56x + 49x^2$

How about these?

1. $81m^2 - 49$

2. $162v^4 - 2w^4$

This type of polynomial is called a _____.