Name _____     Date _____

## Proving Polynomial Identities - Step-by-Step Lesson

Find the square and write your answer in the simplest form.

$(6k - 6)^2$

**Explanation:**

We know that the square of a binomial is:

$(a + b)^2 = a^2 + 2ab + b^2$

$(a - b)^2 = a^2 - 2ab + b^2$

We can see that $(6k - 6)^2$ is the square of a binomial just like

$(a - b)^2$. So, we will find $(6k - 6)^2$ with this formula:

$(a - b)^2 = a^2 - 2ab + b^2$

We will replace (a) with 6k and (b) with 6, then solve.

$(6k - 6)^2$

$= (6k)^2 - 2(6k)(6) + 6^2$

$= 36k^2 - 72k + 36$   We have our polynomial.