Factoring Special Polynomials

To see if a trinomial (such as $4x^2 + 12x + 9$) is a perfect square, use the following test

- Is the first term, 4x², a perfect square? Yes: square root is; (2x)
- Is the last term, 9, a perfect square? Yes: square root is: (3)
- Is the middle term, 12x, twice the product of the square roots of the first and last terms? Yes: 2(2x)(3)= 12x

Thus, $4x^2 + 12 + 9$ is a perfect square trinomial.

