

## Section 2: Perfect Square Trinomials

Binomial Factors	Expanded Binomial Factors	Product
$(x+1)^2$	$(x+1)(x+1)$	
$(x-2)^2$	$(x-2)(x-2)$	
$(x+3)^2$	$(x+3)(x+3)$	
$(x+4)^2$		
$(x-5)^2$		
$(x-6)^2$		
$(x+7)^2$		
$(x-8)^2$		
$(x+9)^2$		
$(x+10)^2$		

- 1) How many terms are there in the products?
- 2) What is special about the first and third terms?
- 3) What is the relationship between the middle term and the other terms? Will this always be true? Why?
- 4) How are the signs of the terms in the product related to the original sign? Will this always be true? Why?
- 5) Explain how would you factor a perfect square trinomial.
- 6) Factor the perfect square trinomial  $a^2 - 2ab + b^2$ .
- 7) Factor the perfect square trinomial  $a^2 + 2ab + b^2$ .