AIM: How do we solve for Perfect Square Trinomials?

Directions: Using the tabular method simplify the following expressions.

1. $(x+2)^2$	**2.** Simplify $(x+3)^2$
3. Simplify $(x+4)^2$	**4.** Simplify $(x+5)^2$

Directions: Factor the following trinomials using the tabular method:

5. $x^2 + 2x + 1$	6. $x^2 + 4x + 4$
Factored Form:_____	**Factored Form:**_____

7. $x^2 + 6x + 9$	8. $x^2 + 8x + 16$
Factored Form:_____	**Factored Form:**_____

Standard form of a Quadratic Equation:_____

Steps to determine the "c-value" of a perfect square trinomial:

1. _____

2. _____

9. $x^2 + 10x +$ _____	10. $x^2 + 12x +$ _____
Factored Form:_____	**Factored Form:**_____
11. $x^2 + 6x +$ _____	12. $x^2 + 4x +$ _____
Factored Form:_____	**Factored Form:**_____

13. $x^2 + 8x +$ _____ **Factored Form:**_____	14. $x^2 + 14x +$ _____ **Factored Form:**_____
15. $x^2 + 20x +$ _____ **Factored Form:**_____	16. $x^2 + 30x +$ _____ **Factored Form:**_____

Standard form of a Quadratic Equation:_____

Steps to determine the "b-value" of a perfect square trinomial:

1. _____

2. _____

17. $x^2 +$ _____ $+ 49$ **Factored Form:**_____	18. $x^2 +$ _____ $+ 64$ **Factored Form:**_____

19. $x^2 + \underline{\hspace{1.5cm}} + 36$

Factored Form:_____

20. $x^2 + \underline{\hspace{1.5cm}} + 16$

Factored Form:_____

21. $x^2 + \underline{\hspace{1.5cm}} + 4$

Factored Form:_____

22. $x^2 + \underline{\hspace{1.5cm}} + 100$

Factored Form:_____

23. $x^2 + \underline{\hspace{1.5cm}} + 144$

Factored Form:_____

24. $x^2 + \underline{\hspace{1.5cm}} + 81$

Factored Form:_____

Partner Practice

1. Simplify $(x+6)^2$	2. Express in factored form: $x^2 + 10x + 25$
3. $x^2 + $_____$+16$ **Factored Form:**_____	4. $x^2 + $_____$+36$ **Factored Form:**_____
5. $x^2 + 10x + $_____ **Factored Form:**_____	6. $x^2 + 14x + $_____ **Factored Form:**_____