

**Factoring Trinomials;  $ax^2 + bx + c$ ,  $a = 1$** **Addition Method****Procedure:**

- 1. Find the factors of the constant,  $c$**
- 2. Find the factors of  $c$  whose sum is  $b$**
- 3. Rewrite the polynomial as factors**

1.  $x^2 + 9x + 20$

$x^2 + 8x + 12$

2.  $x^2 + 13x + 42$

$x^2 + 10x + 16$

3.  $x^2 + 5x + 6$

$x^2 + 7x + 6$

4.  $x^2 + 11x + 10$

$x^2 + 7x + 10$

5.  $x^2 + 6x + 8$

$x^2 + 2x + 1$

6.  $x^2 + 7x + 12$

$x^2 + 15x + 54$

7.  $x^2 + 20x + 100$

$x^2 + 10x + 25$

8.  $x^2 - 9x + 20$

$x^2 - 8x + 12$

9.  $x^2 - 13x + 42$

$x^2 - 10x + 16$

10.  $x^2 - 5x + 6$

$x^2 - 7x + 6$

11.  $x^2 - 11x + 10$

$x^2 - 7x + 10$

12.  $x^2 - 6x + 8$

$x^2 - 2x + 1$

13.  $x^2 - 7x + 12$

$x^2 - 15x + 54$

14.  $x^2 - 20x + 100$

$x^2 - 10x + 25$

15.  $x^2 + x - 20$

$x^2 - 3x - 28$

16.  $x^2 + 3x - 28$

$x^2 - 4x - 21$

17.  $x^2 + 2x - 35$

$x^2 + x - 30$

18.  $x^2 + 7x - 30$

$x^2 - 3x - 40$

19.  $x^2 - 4x - 21$

$x^2 + 7x - 18$

20.  $x^2 - 7x - 44$

$x^2 - 100$

21. The leading coefficient in all these trinomials is \_\_\_\_\_.

22. How is the last problem,  $x^2 - 100$ , different from all the other problems?

23. How are exercises 1 – 7 different from 8 – 14?

24. How are exercises 15 – 20 different from 1- 14?

