

Algebra I
11.6 Worksheet #1
Trinomial Factoring

NAME: _____
DATE: _____ HOUR: _____

Factor using the sum and product rule. Verify by FOILing.

1. $x^2 + 9x + 18$ Find two integers that multiply to be ____ and add to be ____.

Those integers are ____ and ____.

$$x^2 + 9x + 18 = (x + \quad)(x + \quad) =$$

2. $x^2 + 6x + 9$ Find two integers that multiply to be ____ and add to be ____.

Those integers are ____ and ____.

$$x^2 + 6x + 9 = (x + \quad)(x + \quad) =$$

3. $a^2 + a - 6$ Find two integers that multiply to be ____ and add to be ____.

Those integers are ____ and ____.

$$a^2 + a - 6 = (a + \quad)(a + \quad) =$$

4. $x^2 + 2x - 15$ Find two integers that multiply to be ____ and add to be ____.

Those integers are ____ and ____.

$$x^2 + 2x - 15 = (x + \quad)(x + \quad) =$$

5. $b^2 - 7b + 10$ Find two integers that multiply to be ____ and add to be ____.

$$b^2 - 7b + 10 = (b + \quad)(b + \quad) =$$

6. $x^2 - x - 20$ Find two integers that multiply to be ____ and add to be ____.

$$x^2 - x - 20 = (x + \quad)(x + \quad) =$$

7. $y^2 + 4y - 21$ Find two integers that multiply to be ____ and add to be ____.

$$y^2 + 4y - 21 = (y + \quad)(y + \quad) =$$

8. $x^2 - 10x + 16$ Find two integers that multiply to be ____ and add to be ____.

$$x^2 - 10x + 16 = (x + \quad)(x + \quad) =$$

9. $z^2 + z - 12$ Find two integers that multiply to be ____ and add to be ____.

$$z^2 + z - 12 = (z + \quad)(z + \quad) =$$

10. $x^2 - 8x + 12$ Find two integers that multiply to be ____ and add to be ____.

$$x^2 - 8x + 12 = (x + \quad)(x + \quad) =$$

11. $c^2 + 3c - 10$ Find two integers that multiply to be ____ and add to be ____.

$$c^2 + 3c - 10 = (c + \quad)(c + \quad) =$$

12. $d^2 - 5d + 4$ Find two integers that multiply to be ____ and add to be ____.

$$d^2 - 5d + 4 = (d + \quad)(d + \quad) =$$

13. $x^2 - 4x - 12$ Find two integers that multiply to be ____ and add to be ____.

$$x^2 - 4x - 12 = (x + \quad)(x + \quad) =$$

14. $p^2 + 5p + 6$ Find two integers that multiply to be ____ and add to be ____.

$$p^2 + 5p + 6 = (p + \quad)(p + \quad) =$$

15. $x^2 - 5x - 24$ Find two integers that multiply to be ____ and add to be ____.

$$x^2 - 5x - 24 = (x + \quad)(x + \quad) =$$