

Factoring Thought Process

1. _____ → Example:

2. _____ → Example:

3. _____ → Example:

4. _____ → Example:

Factor.

1. $x^2 + 17x - 18$

$(x-1)(x+18)$

2. $2n^2 + 8$

$2(n^2+4)$

3. $x^2 - 24x - 81$

$(x-27)(x+3)$

$$4. m^2 - 36$$

$$\underline{(m+6)(m-6)}$$

$$5. x^2 - 8x + 20$$

Prime

$$6. 6x^2 + 66x + 60$$

$$\underline{6(x+10)(x+1)}$$

$$7. 25x^2 - 49$$

$$\underline{(5x+7)(5x-7)}$$

$$8. 9 - t^2$$

$$\underline{(3+t)(3-t)}$$

$$9. y^2 - 2y - 24$$

$$\underline{(y-6)(y+4)}$$

$$10. x^2 + 49$$

Prime

$$11. 6x^2 + 23x + 20$$

$$\underline{(2x+5)(3x+4)}$$

$$12. x^2 + 20x + 75$$

$$\underline{(x+5)(x+15)}$$

$$13. x^2 - 26x + 48$$

$$\underline{(x-2)(x-24)}$$

$$14. 3x^2 - 11x - 8$$

Prime

$$15. 4x^3 - 44x^2 + 40x$$

$$\underline{4x(x-1)(x-10)}$$

$$16. 30n^2b - 87nb + 30b$$

$$\underline{3b(2n+5)(5n+2)}$$

$$17. 15y^3 - 9y^2 + 3y$$

$$\underline{3y(5y^2 - 3y + 1)}$$

$$18. 2x^4 - 8x^2$$

$$\underline{2x^2(x+2)(x-2)}$$