Factoring WS 1 Name _____

If you have forgotten how to factor since last year, you should Google some examples to remember!

Factor each of the following using a **Greatest Common Factor (GCF)**.

1. $y^2 - 5y$

$\boxed{y(y-5)}$

2. $4a^2 + 2a$

3. $x^3 + 9x^2$

4. $3x^2 + 12$

5. $7y^3 + 14y^2$

6. $6x^2y^3 + 21xy^2$

7. $9x^3y^2 - 6x^2y^3 + 3x^3y^3$

8. $24x^3 + 36x^2 + 72x$

Factor each of the following using the **Difference of Two Squares (DoTS)**.

9. $x^2 - 16$

$\boxed{(x+4)(x-4)}$

10. $9x^2 - 25y^2$

11. $4a^2 - 49$

12. $100y^2 - 81$

13. $6x^2 - 6y^2$

14. $x^2 - 144$

Factor each of the following by **Grouping**.

15. $3x(y+1) - 4(y+1)$

$\boxed{(y+1)(3x-4)}$

16. $5(3x-7) + 2y(3x-7)$

17. $x^3 + 6x^2 + 2x + 12$

18. $m^3 - m^2 - 3m + 3$

Factor each of the following **Trinomials**.

19. $w^2 - 14w + 45$

$\boxed{(w-9)(w-5)}$

20. $x^2 + 2x - 24$

21. $r^2 + 12r + 20$

22. $y^2 - 15y + 54$

23. $g^2 - 5g + 6$

24. $k^2 - k - 20$