

SHOW ALL WORK

1 – 9. Simplify the following:

_____ 1. $2x^3(-4x^4)$

_____ 2. $\left(\frac{1}{2}\right)^0$

_____ 3. $(-2a^5)^4$

_____ 4. Write an equivalent expression using only positive exponents: $\frac{x^{-4}w^{-3}}{y^3w^5}$

_____ 5. $(2x^2 + 5x - 4) + (x^2 - 5x - 7)$

_____ 6. $(4x^2 + 2x - 6) - (3x^2 - 4x - 6)$

_____ 7. $(4a^2 + 5a - 1)(a - 9)$

_____ 8. $(4n + 4)(3n - 2)$

_____ 9. $(4x^3 + 3x + 6) - (2x^2 + 7x + 1)$

10 – 20. Factor the following completely:

_____ 10. $5n + nt^2$

_____ 11. $28 a^5b^3 - 21ab^4$

_____ 12. $h^2 - 25$

_____ 13. $(a - c)^2 - 49$

_____ 14. $x^2 + 16x + 64$

_____ 15. $25 - 10x + x^2$

_____ 16. $y^2 + y - 12$

_____ 17. $2c^2 + 9c - 5$

_____ 18. $27y^3 + 8$

_____ 19. $3w^4 - 48$

_____ 20. $2a^6 + 128$

BONUS: Factor COMPLETELY: $m^3a^4 + a^4 - m^3b^4 - b^4$