Name: _____ Show work needed to justify your answer. Date: _____

HW # 57: Algebra 1 - Standard 37 - Multiply Polynomials by a Monomial 5 points

Simplify each expression.

1. $b(b^2 - 12b + 1)$

$b^3 - 12b^2 + b$

3. $-3m^3(2m^3 - 12m^2 + 2m + 25)$

$-6m^6 + 36m^5 - 6m^4 - 75m^3$

4. $2j^2(5j^3 - 15j^2 + 2j + 2)$

$10j^5 - 30j^4 + 4j^3 + 4j^2$

5. $2p^2r^2(2p^2r^2 + 5p^2r^2 - 15p^2)$

$4p^4r^4 + 10p^4r^4 - 30p^4r^2$

Simplify each expression.

7. $-3(5x^2 + 2x + 9) + x(2x - 3)$

$-15x^2 - 6x - 27 + 2x^2 - 3x$

$-13x^2 - 9x - 27$

8. $a(-8a^2 + 2a + 4) + 3(6a^2 - 4)$

$-8a^3 + 2a^2 + 4a + 18a^2 - 12$

$-8a^3 + 20a^2 + 4a - 12$

9. $-4d(5d^2 - 12) + 7(d + 5)$

$-20d^3 + 48d + 7d + 35$

$-20d^3 + 55d + 35$

10. $-9g(-2g + g^2) + 3(g^3 + 4)$

$18g^2 - 9g^3 + 3g^3 + 12$

$-6g^3 + 18g^2 + 12$

11. $2j(7j^2k^2 + jk^2 + 5k) - 9k(-2j^2k^2 + 2k^2 + 3j)$

$14j^3k^2 + 2j^2k^2 + 10jk + 18j^2k^3 - 18k^3 - 27jk$

$14j^3k^2 + 2j^2k^2 + 18j^2k^3 - 18k^3 - 17jk$