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

HW # 58a: Algebra 1 - Standard 37 - Multiply Polynomials 5 points

Find each product.

18. $(2y - 11)(y^2 - 3y + 2)$

$2y^3 - 6y^2 + 4y - 11y^2 + 33y - 22$

$2y^3 - 17y^2 + 37y - 22$

19. $(4a + 7)(9a^2 + 2a - 7)$

$36a^3 + 8a^2 - 28a + 63a^2 + 14a - 49$

$36a^3 + 71a^2 - 14a - 49$

20. $(m^2 - 5m + 4)(m^2 + 7m - 3)$

$m^4 + 7m^3 - 3m^2 - 5m^3 - 35m^2 + 15m + 4m^2 + 28m - 12$

$m^4 + 2m^3 - 34m^2 + 43m - 12$

21. $(x^2 + 5x - 1)(5x^2 - 6x + 1)$

$5x^4 - 6x^3 + 1x^2 + 25x^3 - 30x^2 + 5x - 5x^2 + 6x - 1$

$5x^4 + 19x^3 - 34x^2 + 11x - 1$

22. $(3b^3 - 4b - 7)(2b^2 - b - 9)$

$6b^5 - 3b^4 - 27b^3 - 8b^3 + 4b^2 + 36b - 14b^2 + 7b + 63$

$6b^5 - 3b^4 - 35b^3 - 10b^2 + 43b + 63$

23. $(6z^2 - 5z - 2)(3z^3 - 2z - 4)$

$18z^5 - 12z^3 - 24z^2 - 15z^4 + 10z^2 + 20z - 6z^3 + 4z + 8$

$18z^5 - 15z^4 - 18z^3 - 14z^2 + 24z + 8$

Simplify.

48. $(m + 2)[(m^2 + 3m - 6) + (m^2 - 2m + 4)]$

$m^3 + 3m^2 - 6m + 2m^2 + 6m - 12 + 1m^2 - 2m + 4$

$m^3 + 6m^2 - 2m - 8$

49. $[(t^2 + 3t - 8) - (t^2 - 2t + 6)](t - 4)$

$[t^2 + 3t - 8 - t^2 + 2t - 6](t - 4)$

$(5t - 14)(t - 4)$

$(5t - 14)(t - 4)$

$5t^2 - 20t - 14t + 56$

$5t^2 - 34t + 56$