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

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

Solve each equation.

17. $7(t^2 + 5t - 9) + t = t(7t - 2) + 13$

$7t^2 + 35t - 63 + t = 7t^2 - 2t + 13$

$-7t^2 \quad = \quad -7t^2$

$36t - 63 = -2t + 13$

$+2t \qquad +2t$

$38t - 63 = 13$

$+63 \quad +63$

$38t = 76$

$\frac{38t}{38} = \frac{76}{38}$

$t = 2$

18. $w(4w + 6) + 2w = 2(2w^2 + 7w - 3)$

$4w^2 + 6w + 2w = 4w^2 + 14w - 6$

$-4w^2 \qquad\qquad -4w^2$

$8w = 14w - 6$

$-14w \quad -14w$

$-6w = -6$

$\frac{-6w}{-6} = \frac{-6}{-6}$

$w = 1$

19. $5(4z + 6) - 2(z - 4) = 7z(z + 4) - z(7z - 2) - 48$

$20z + 30 - 2z + 8 = 7z^2 + 28z - 7z^2 + 2z - 48$

$18z + 38 = 30z - 48$

$-18z \qquad -18z$

$38 = 12z - 48$

$+48 \qquad +48$

$86 = 12z$

$\frac{86}{12} = \frac{12z}{12}$

$\frac{43}{6} = z$

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

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

Solve each equation.

20. $9c(c - 11) + 10(5c - 3) = 3c(c + 5) + c(6c - 3) - 30$

$9c^2 - 99c + 50c - 30 = 3c^2 + 15c + 6c^2 - 3c - 30$

$9c^2 - 49c - 30 = 9c^2 + 12c - 30$

$-9c^2 \quad +30 \quad -9c^2 \quad +30$

$-49c = 12c$

$+49c \quad +49c$

$\frac{0}{61} = \frac{61c}{61}$

$c = 0$

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21. $2f(5f - 2) - 10(f^2 - 3f + 6) = -8f(f + 4) + 4(2f^2 - 7f)$

$10f^2 - 4f - 10f^2 + 30f - 60 = -8f^2 - 32 + 8f^2 - 28f$

$26f - 60 = -28f - 32$

$+28f \quad +28f$

$54f - 60 = -32$

$+60 \quad +60$

$\frac{54f}{54} = \frac{28}{54}$

$f = \frac{28}{54}$

$f = \frac{14}{27}$

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22. $2k(-3k + 4) + 6(k^2 + 10) = k(4k + 8) - 2k(2k + 5)$

$-6k^2 + 8k + 6k^2 + 60 = 4k^2 + 8k - 4k^2 - 10k$

$8k + 60 = -2k$

$-8k \quad -8k$

$\frac{60}{-10} = \frac{-10k}{-10}$

$K = -6$