

10.1 - 10.4 Review

Name: _____

Date: _____

Period: _____

Based on each expression below, classify by terms and degrees.

1. $6x^2 + 10x$	2. $-12x^4$	3. $3x^3 + 9x^2 - 7x + 20$
4. $5x$	5. 32	6. $5x^2 + 3x - 9$

Put each quadratic equation below into standard form.

7. $3x + y - 2x^2 = 9 + 8x - 11x^2$	8. $2y - 10x = 18 - 2(5x - 3x^2)$	9. $8x^2 - 9 + y = 3x(2x + 4) - 9x^2$
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Simplify each expression below and classify by terms and degrees.

10. $(10x + 3x^2 - x^3) + (-4x^3 + 8x^2 - 6x - 11x^2)$	11. $(8x^3 - 12 + 3x^2 - x^4) - (-2x^2 + 8x^3 - 6x^4 + 5x^2 + 5x^4)$
12. $(x + 9)(x - 7)$	13. $(4x - 10)(2 - 5x^2)$

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Add or subtract the following polynomials

14. $(-7x^3 + 5x^5 + 3) + (-9x^5 - 5 - 7x^3)$	15. $(p^2 - 81) - (-7p^3 + 5p^5 + 3)$
16. $(9k - 8p) + (2p + 3k)$	17. $(3x^3 - 7x - 5) - (x^3 - 2x^2 + 4)$

Solve using area model

18. $(3x - 4)(9x + 5)$	19. $(2x + 1)(5x^2 + 7x - 3)$
20. $(3x^2 - 5)^2$	21. $(2x^2 + 4)(3x + 3)$

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Solve using FOIL

22. $(x - 2)(x + 6)$	23. $(x - 9)^2$
24. $(3x + 5)(-2x^2 + 4x + 1)$	25. $(x + 5)(x - 5)$
26. $(5x + 2)^2$	27. $(7x^2 + 8x - 4)(3x^2 - 4x + 5)$
28. $(x - 3)(x - 3)$	29. $(4x^2 - 3)(x + 8)$
30. $(5x^2 + 5x + 5)(x - 1)$	31. $(2x^2 - 5)(2x^2 - 5)$