Sections 6–1 to 6–3 Review Worksheet

Name:_____ Period:_____

Directions: Write both names of each polynomial.

1. $2a^2 - 9$

2. $3b^3 + 8b^2 - 2$

Directions: Add or subtract each set of polynomials.

3. $(6z^5 - 8z^3 + 2z^4) + (4z^3 - 7z^4 + 2z^5)$

4. $(2y - 5y^2) - (4y - 8 - 6y^2) + (3 + 8y^2 - 3y)$

Directions: Multiply each set of polynomials.

5. $3x^2(6x^3 + 5x - 7)$

6. $(5w^2 - w + 2)(4w - 3)$

7. $(v^2 - 5v)(3v^2 - 2v + 8)$

Directions: Find the expanded expression for each power of the binomial using Pascal's Triangle. **Show all work.**

8. $(u - 5)^5$

9. $(2t + 3)^6$

Directions: Find the desired term for each expanded power of the binomial using Pascal's Triangle. **Show all work.**

10. The 3rd term of $(r+4)^6$

11. The 4th term of $(5p-6q)^7$

Directions: Divide using long division. **Show all work.**

14. $(x^4+6x^3-25x^2+23x-10)\div(x-2)$

15. $(8x^4+26x^3+2x^2-29x-7)\div(4x+1)$

Directions: Divide using synthetic division. **Show all work.**

15. $(x^3-11x^2+32x-10)\div(x-5)$

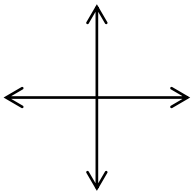
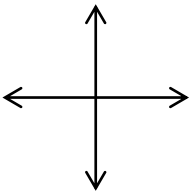
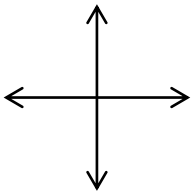
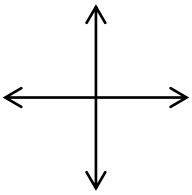
16. $(18x^4-3x^3+23x^2-5x-18-32)\div(3x+2)$

Directions: Find the value of each polynomial function at the given domain value. **Show all work.**

19. $P(x) = 2x^3 - 8x^2 + 5x - 4$ for $x = 6$

20. $P(x) = 6x^6 + 21x^5 + 12x^4 - 3x^3 - 13x^2 + 79x + 12$ for $x = -3$

Directions: Complete the parent function chart.

NAME	**CONSTANT**	**LINEAR**	**ABSOLUTE VALUE**	**QUADRATIC**
EQUATION				
GRAPH				
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