

KEY

1. Simplify $(3x^3 - 7x^2 + 4) + (5x^3 - 4x^2 + 32)$ $8x^3 - 11x^2 + 36$	2. Simplify $(4a^3 + 5a^2 + 10a) - (2a^3 + a^2 - 8a)$ $2a^3 + 4a^2 + 18a$
3. Simplify $(4x^2 - 5) + (6x^2 + 7x - 8)$ $10x^2 + 7x - 13$	4. Simplify $(x^2 + 5x - 12) - (6x^2 - 7x - 9)$ $-5x^2 + 12x - 3$
5. Find the GCF $8x^5 + 24x^4 + 4x^3$ $4x^3$	6. Find the GCF $10x^5y^4 + 20x^4y^3 - 8x^3y^3$ $2x^3y^3$
7. Factor out the GCF $4x^5 + 20x^4 + 18x^3$ $2x^3(2x^2 + 10x + 9)$	8. Factor out the GCF $6x^5 + 24x^4 + 12x^3$ $6x^3(x^2 + 4x + 2)$
9. Simplify $4x^3(x^2 + 6)$ $4x^5 + 24x^3$	10. Simplify $-4x^3(x^6 - 7)$ $-4x^9 + 28x^3$

Operations with Polynomials—REVIEW A

11. Simplify

$$(2x + 7)(x + 4)$$

$$2x^2 + 15x + 28$$

12. Simplify

$$(5x + 1)(8x - 3)$$

$$40x^2 - 7x - 3$$

13. Simplify

$$(x + 4)(3x^2 - 3x + 7)$$

	x	4
$3x^2$	$3x^3$	$12x^2$
$-3x$	$-3x^2$	$-12x$
7	$7x$	28

$$3x^3 + 9x^2 - 5x + 28$$

14. Simplify

$$(5x^2 - 2x + 11)(7x + 1)$$

	$7x$	1
$5x^2$	$35x^3$	$5x^2$
$-2x$	$-14x^2$	$-2x$
11	$77x$	11

$$35x^3 - 9x^2 + 75x + 11$$