Algebra 1   Name_____ ID: 1

Assignment

Date_____ Period____

Simplify each expression.

1) $\left(8r^2 + 6r + 3r^4\right) - \left(5r^2 - 7r - 1\right)$

2) $\left(3x + 3 + 4x^3\right) - \left(8 + 8x + 8x^3\right)$

3) $\left(8a^3 - 7a^2 - 4a\right) - \left(7a + 6 + a^2\right)$

4) $\left(2n^2 - 4n^3 + 3n^4\right) - \left(n^2 + 2n^4 - n^3\right)$

5) $\left(5r^3 + 6 - 6r^2\right) - \left(8 - 6r^3 - 8r\right) - \left(4r^4 - 8r^3 - 6\right)$

6) $\left(3x^2 + x^3 + 3x\right) - \left(4x^2 - x^3 - 2x\right) - \left(4x^2 + 6x^3 + 7x\right)$

7) $\left(3p - p^2 - 3p^4\right) + \left(5p + 8p^4 - 3p^3\right) - \left(2p^4 - 3p - 5p^3\right)$

8) $\left(8 - 5k - 3k^4\right) - \left(7k^3 - 5k^2 - k^4\right) - \left(4k^3 - 7k + k^2\right)$

9) $\left(5p^3 + 3 + 2p^4 + 2p\right) - \left(5p + 6p^4 + 8p^3 + 8\right) - \left(3 - 2p^3 + 8p\right)$

10) $\left(6n^4 - 6n - 2n^3 - 4n^2\right) - \left(n^3 - 7n^4 - 4n^2 + 7n\right) - \left(2n^2 - n - 3n^4\right)$

11) $\left(7n + 8n^3 + 2n^4 + 7n^2\right) - \left(3n^3 + 4n - 8n^2 + 6n^4\right) + \left(5n^4 + n^3 - 5n^2\right)$

12) $\left(3 - 2x^4 + 7x - 4x^2\right) + \left(4x + 7 + 2x^2 + 6x^4\right) - \left(8x - 4x^4 + 2x^2\right)$

Find each product.

13) $(2x + 7)(7x - 8)$

14) $(8b + 5)(b - 1)$

15) $(n - 5)(8n - 8)$

16) $(7p + 4)(5p + 7)$

17) $\left(8b^2 - 6b - 6\right)(5b + 7)$

18) $\left(6m^2 + m - 1\right)(6m - 1)$

19) $\left(v^2 - 6v - 8\right)(6v - 1)$

20) $\left(4r^2 - 2r - 1\right)(7r + 3)$

21) $\left(k^2 + 6k + 1\right)\left(5k^2 + 6k - 4\right)$

22) $\left(8n^2 + 4n + 4\right)\left(4n^2 + n - 3\right)$

23) $\left(3n^2 - n + 7\right)\left(5n^2 + 4n + 5\right)$

24) $\left(6r^2 + r + 8\right)\left(8r^2 - 6r - 2\right)$