Math 2A Name_____ ID: 1

2.4 Multiplying Polynomials

Date_____ Period____

Find each product.

1) $5x^2(x + 6)$

2) $5x^2(x - 6)$

3) $7m(4m + 1)$

4) $8k^2(4k - 6)$

5) $(8n + 2)(6n - 5)$

6) $(4m - 7)(4m + 1)$

7) $(5n - 7)(6n + 1)$

8) $(n - 5)(6n - 3)$

9) $4(5n^2 - 8n + 4)$

10) $4(3x^2 + 3x + 5)$

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

12) $(2n - 3)(2n^2 - 7n + 7)$

13) $8xy^5(x - 7y)$

14) $7y^3(6x - 6y)$

15) $x(x + 5)(x - 2)$

16) $3(2x - 3)(x + 1)$

CHALLENGE QUESTIONS

17) $(6x^2 + 2x - 1)(6x^2 - 8x - 1)$

18) $(4r^2 + r - 5)(8r^2 + 3r + 6)$

19) What is the lowest degree that a polynomial can have? Explain.

20) A bedroom has a length of x + 3 feet and a width of x feet.
a) Find the polynomial that represents the area of the bedroom.
b)Find the area when x = 10.

21) Cameron is creating a garden. He designs a rectangular garden with a length of (x + 6) feet and a width of (x + 2) feet. Find the polynomial that represents the area of the garden.

22) Karl is putting a frame around a rectangular photograph. The photograph is 12 inches long and 10 inches wide, and the frame is the same width all the way around. What will be the area of the framed photograph?