Name: _____

Multiplying Monomials and Polynomials

Find the product.

1) $^{-}2y(3x^2 + x)$

2) $(6y - 1)4y^2$

3) $^{-}3a^2(3a^2 + a + 2)$

4) $(8z + 3)z^2$

5) $10b(3b^2 + 7b + 4)$

6) $(d^2 + 9d - 2)(^{-}7d)$

7) $(3g + 10)12g$

8) $5x(x^2 - 2x)$

9) $^{-}8t^2(4 + t^2)$

10) $(4f^2 - 1)3f$

11) $^{-}4n^2(n^2 + 2n)$

12) $^{-}g^2(g^2 - 6g)$

13) $5d^2(d^2 - 7d + 1)$

14) $2(3x^2 + x + 2)$

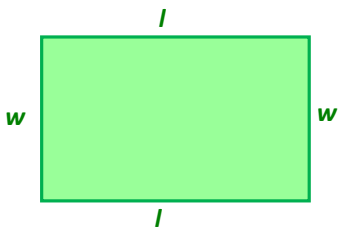
15) $^{-}r(^{-}r^2 + 2r - 1)$

16) $^{-}7y(3y^2 + 4y - 2)$

17) $(m^3 + 9m^2 + 1)3m^2$

18) $(w^3 - 6w^2 + w)6w$

19) You have 50 feet of wire fencing that you want to use to make a rectangular pen for rabbits. Let *l* be the length of the pen. What is a polynomial expression in terms of *l* for the area of the pen?



Perimeter = 50 ft

A. Write the formula for the perimeter of a rectangle. Substitute 50 for the perimeter.

B. Solve the equation from Step 1 for *w* to obtain a polynomial expression in terms of *l* for the width.

C. Multiply the expression from Step 2 by *l* to obtain a polynomial expression in terms of *l* for the area of the pen.