

Homework Review - 9.1

$$\begin{array}{rcl}
 \textcircled{4b} & -18.53t^2 + 975.8t + 48,140 & \# \\
 & 80.8t + 8049 & \# \\
 \hline
 & -18.53t^2 + 1056.6t + 56189 & \#
 \end{array}$$

$$\begin{array}{r}
 1985 - 0 \\
 1986 - 1 \\
 1987 - 2 \\
 1988 - 3 \\
 1989 - 4 \\
 1990 - 5 \\
 1991 - 6 \\
 1992 - 7 \\
 1993 - 8 \\
 1994 - 9 \\
 1995 - 10 \\
 1996 - 11 \\
 1997 - 12 \\
 1998 - 13 \\
 1999 - 14 \\
 2000 - 15 \\
 2001 - 16 \\
 2002 - 17 \\
 2003 - 18 \\
 2004 - 19 \\
 2005 - 20 \\
 2006 - 21 \\
 2007 - 22 \\
 2008 - 23 \\
 2009 - 24 \\
 2010 - 25 \\
 2011 - 26 \\
 \hline
 t = 27
 \end{array}$$

$$\begin{aligned}
 -13508.37 + 26346.6 + 48140 &= \\
 60978.23 & \text{ (Public)}
 \end{aligned}$$

$$\begin{aligned}
 -13508.37 + 28528.2 + 56189 &= \\
 71208.83 & \text{ (total)}
 \end{aligned}$$

$$\boxed{85.6\%}$$

$$\textcircled{22} (3x^2 + 8) + (-4x^3 + x^2 + 15x + 1)$$

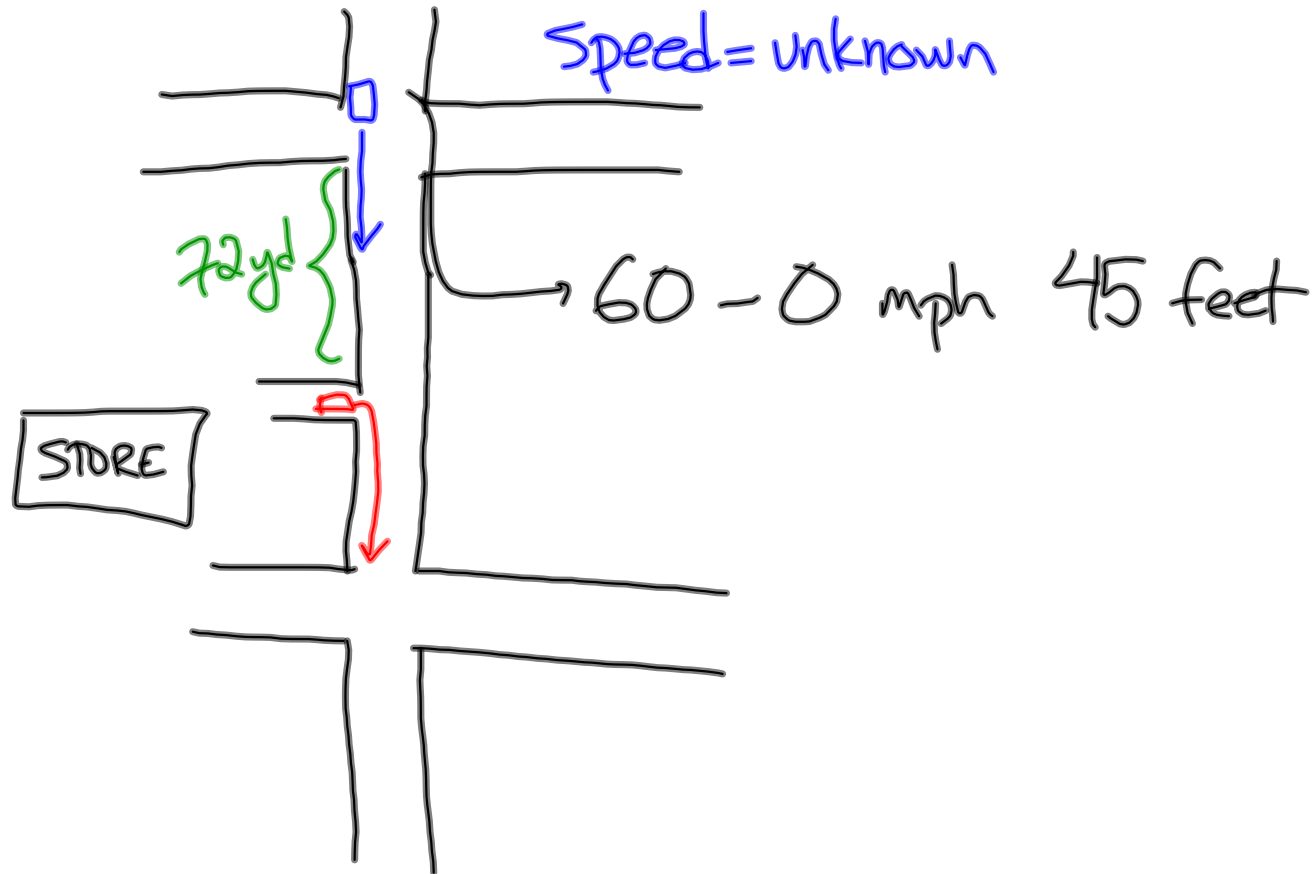
$$3x^2 + -8 + -4x^3 + -x^2 + 15x + -1$$

$$-4x^3 + 2x^2 + 15x + -9$$

$$\textcircled{26} (9p^2 + 6p^3 + 3 + 11p) + (7p^3 + 3p^2 + 4)$$

$$9p^2 + 6p^3 + 3 + 11p + 7p^3 + 3p^2 + 4$$

$$p^3 + 6p^2 + 11p + 7$$



Multiplying polynomials

$$6x^2y^3(4x^4y^2z)$$

$$24x^6y^5z$$

$$24x^6y^5z$$

Multiplying monomials:

Multiply non-variable #'s together

6, 4

Multiply like variables (use exponent rules)

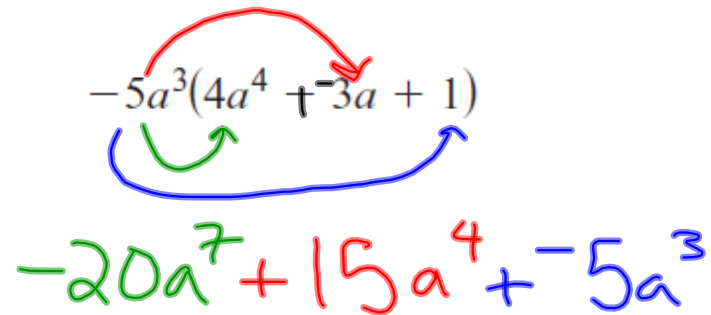
x^2, x^4

y^3, y^2

z

Write your answer in the proper order

Multiplying polynomials, continued

$$-5a^3(4a^4 + 3a + 1)$$


$$-20a^7 + 15a^4 + -5a^3$$

$$-20a^7 + 15a^4 + -5a^3$$

$$a^3 \cdot a^4$$

$$a \cdot a \cdot a \cdot a \cdot a \cdot a \cdot a = a^7$$

Multiplying a monomial by a polynomial:

Multiply each term in the polynomial by the monomial

Simplify the resulting expression by combining like terms

Multiplying polynomials, continued

$$(2s + 5)(s^2 + 3s - 1)$$

Multiplying polynomials:

Multiply each term in the first polynomial by each term in the second polynomial

$$2s^3 + 6s^2 - 2s + 5s^2 + 15s - 5$$

Combine like terms

$$2s^3 + 11s^2 + 13s - 5$$

2. $-5a^3(4a^4 - 3a + 1)$

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

$-8d^5 + 20d^4 - 24d^3 + 8d^2$

16. $a(3a + 1) + (a + 1)(a - 1)$

$3a^2 + a + a^2 - a + a - 1$

$4a^2 + a - 1$

17. $(x + 2)(x + 5) - x(4x - 1)$

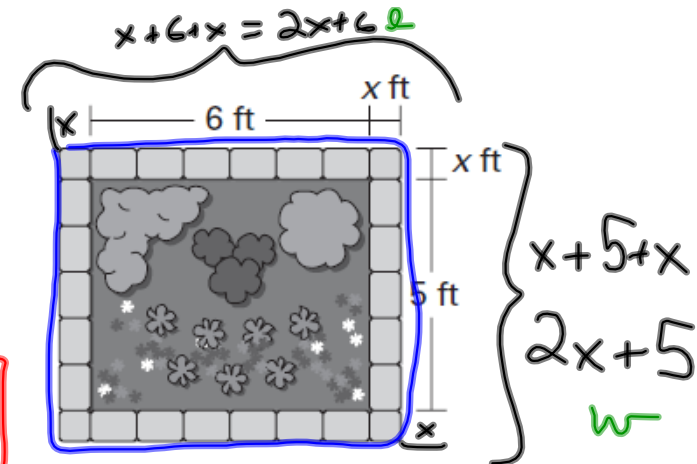
$x^2 + 5x + 2x + 10 - 4x^2 + x$

$-3x^2 + 8x + 10$

Flower Bed You are designing a rectangular flower bed that you will border using brick pavers. The width of the border around the bed will be the same on every side, as shown.

a. Write a polynomial that represents the total area of the flower bed and the border.

b. Find the total area of the flower bed and border when the width of the border is 1.5 feet.



$$A = (2x + 6)(2x + 5)$$

$$4x^2 + 10x + 12x + 30$$

$$4x^2 + 22x + 30$$

$$4(1.5^2) + 22(1.5) + 30$$

$$9 + 33 + 30 = 72 \text{ ft}^2$$

Homework:

p. 565; 3-42 (every 3rd), 50