Name: _____   Date: _____

Section 5.2 Extra Practice

1. Determine
   i) the value of the coefficient
   ii) the number of variables for each term
   a) $-t$ i) _____   ii) _____   **b)** $4d^2$ i) _____   ii) _____
   c) 12 i) _____   ii) _____   **d)** $-8de$ i) _____   ii) _____
   e) b i) _____   ii) _____   **f)** $-c^2$ i) _____   ii) _____

2. Match the expression with its description by placing the correct letter in the blank.

   A $-4x$ _____ a constant

   B 17 _____ a binomial with two variables

   C $2ab$ _____ -1 is the coefficient

   D $3y^2 - 2y$ _____ -4 is the coefficient

   E $-m$ _____ a binomial with a degree of 2

   F $5x - 3y$ _____ a monomial with a degree of 2

3. Circle the like terms in each group.
   a) $4x$, $4y$, x^2, $-x$, y^2 **b)** 6, $2x$, -2.5, $3y$, -0.1
   c) a, $4b$, $-3ab$, $7a$, $1.5a$ **d)** $-f$, $3ef$, f^2, $-6f^2$, $5e$

   e) $6st$, $-10s$, $\frac{3}{4}st$, $-st$, t **f)** pq, $-0.6p^2$, $5q$, $-p^2$, $10p^2$

   g) $0.5jk$, $-jk$, j^2, $6jk$, $-k$ **h)** $\frac{2}{5}$, $\frac{1}{2}r$, 0.12, r^2, 9

4. Collect like terms.
   a) $3m - m^2 - 6 + 3m^2$ **b)** $-4k - k^2 + 5k - 7k^2 + 8$
   _____   _____

   c) $-c - c^2 + 3c + c^2$ **d)** $7 - 10 + 5n - n + 9 + 8n$
   _____   _____

   e) $-2b^2 - 7b + 3b^2 - 8b + b$ **f)** $w^2 - 3w - 8w^2 + 7w^2 + 10w$
   _____   _____

   g) $-2a - 1 - a - 7 - 5a$ **h)** $3s + 6 - 6s^2 - 8 + 7s - 2s^2$
   _____   _____

5. A rectangle's length is 7 cm greater than its width, *w*.
   a) Draw the rectangle and label its dimensions.

   b) Write the expression to find its perimeter.

   c) Collect like terms.

6. The cost of publishing the school yearbook was $440. The yearbook
   committee priced the yearbook at $8.
   a) Write an expression that represents the profit, *p*, for the number of
      yearbooks sold, *n*.

   b) How many yearbooks need to be sold for the yearbook committee to break
      even?