

Name: Answer Key

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) <u>-1</u> | ii) <u>1</u> | b) $4d^2$ | i) <u>4</u> | ii) <u>1</u> |
| c) 12 | i) <u>n/a</u> | ii) <u>0</u> | d) $-8de$ | i) <u>-8</u> | ii) <u>2</u> |
| e) b | i) <u>1</u> | ii) <u>1</u> | f) $-c^2$ | i) <u>-1</u> | ii) <u>1</u> |

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

- A $-4x$ B a constant
- B 17 F a binomial with two variables
- C $2ab$ E -1 is the coefficient
- D $3y^2 - 2y$ A -4 is the coefficient
- E $-m$ D a binomial with a degree of 2
- F $5x - 3y$ C 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) $3m - m^2 - 6 + 3m^2$
<u>$2m^2 + 3m - 6$</u> | b) $-4k - k^2 + 5k - 7k^2 + 8$
<u>$-8k^2 + k + 8$</u> |
| c) $-c - c^2 + 3c + c^2$
<u>$2c$</u> | d) $7 - 10 + 5n - n + 9 + 8n$
<u>$12n + 6$</u> |
| e) $-2b^2 - 7b + 3b^2 - 8b + b$
<u>$b^2 - 14b$</u> | f) $w^2 - 3w - 8w^2 + 7w^2 + 10w$
<u>$7w$</u> |
| g) $-2a - 1 - a - 7 - 5a$
<u>$-8a - 8$</u> | h) $3s + 6 - 6s^2 - 8 + 7s - 2s^2$
<u>$-8s^2 + 10s - 2$</u> |

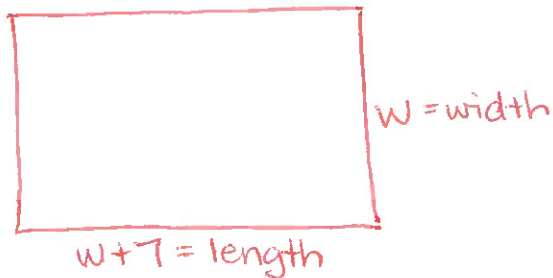
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BLM 5-7
(continued)

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.

$$P = w + w + 7 + w + w + 7$$

c) Collect like terms.

$$P = 4w + 14$$

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 .

$$\text{Profit} = 8n - 440$$

revenue minus costs

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

$$\hookrightarrow \text{costs} = \text{revenue}$$

$$\frac{440}{8} = \frac{8n}{8}$$

$55 = n$ They would need to sell 55 yearbooks to break even.