

Section 1.9 Focus Exercises

1. Given the term identify the coefficient and the variable cluster.

	Term	Coefficient	Variable Cluster		Term	Coefficient	Variable Cluster
a)	$-5p^4q^3$			b)	$-2w$		
c)	$\frac{3}{4}xy^2$			d)	x^2		
e)	$-x^0$			f)	-9		

2. Identify the terms in each algebraic expression. Separate them by a comma on the line below the expression.

a) $-6x^3 + 4x - 1$

b) $x^2 - 5x + 8$

c) $2x^5 - 3x^4 - \frac{5}{4}x + 12$

d) $7x^3 - 6x^2y + xy^2 - 4y^3$

3. Simplify each expression by combining like terms. If the terms are *not* like terms, then write “cannot combine.”

a) $4b^3 + 3b^3 =$ _____

b) $-b - 6b =$ _____

c) $-2y + 2y =$ _____

d) $-y - y =$ _____

e) $n + (-5n) =$ _____

f) $7n^3 - 4n =$ _____

g) $-6h - (-3h) =$ _____

h) $2h^2 - 5h^2 =$ _____

i) $-8x^3r + 4x^3r =$ _____

j) $3v - 6p =$ _____

k) $4p + (-4p) =$ _____

l) $-2w + 0w =$ _____

4. Multiply and write the product as one term.

a) $(7k)(6k) =$

b) $-3(8c) =$

c) $(2p)(-14p) =$

d) $(-9x)(-x) =$

e) $8c(-6) =$

f) $(-4m)(3k) =$

g) $-7(-8x^4) =$

h) $x(-2) =$

i) $(6n)(-5) =$

j) $y(-y) =$

k) $-c(c) =$

l) $(-x)(-x) =$

m) $2y(-5) =$

n) $-6c(5) =$

o) $(-4x)(-5) =$

5. Apply the distributive property to each expression.

a) $5(7x - 8)$

b) $8(1 - 2v)$

c) $(9m - 5)6$

d) $3(8x - 7y)$

e) $-6(5x + 8)$

f) $-7(y - 4)$

g) $-5(-3 + 7w)$

h) $-2(-8p - 9d)$

i) $x(x + 4)$

j) $2y(3y - 10)$

k) $-3a(a + 1)$

l) $-4y(y^3 - 7y)$

m) $-5m(7m + 1)$

n) $-1(9m - 6x)$

o) $-k(-5k - 6)$

p) $-7p(-p + 3)$