

Name: _____

1. State the coefficient of $4x^2$. _____2. State the variable part of $5xy$. _____3. Classify each of the following as a **monomial**, **binomial**, **trinomial**.a) $x^2y - 3z$ _____ b) $2xyz$ _____

4. Simplify.

a) $-7x - 3x$ b) $8x - 3 + x - 1$ c) $-7x - 4y + 8x - y$ d) $(3x)(5x)$ e) $(6x)(-2x)$ f) $(-8x)(-4x)$ g) $6(x+11)$ h) $-5(2y-4)$ i) $-(8-2a)$ j) $x(3x-7)$ k) $2x(x+8)$ l) $-7(5x^2+2x-4)$

5. Expand and simplify.

a) $(5x-11)+(3x+4)$ b) $(-4y+1)-(7y-2)$ c) $3(x-1)-6(5x+3)$ d) $-2x(3x-1)-6x(5x+3)$ 6. Simplify by collecting like terms and then evaluate for $x = -4$ and $y = -\frac{1}{2}$.

$$6x - 3y - 5x + 2y + 5x + y$$

1. State the coefficient of $4x^2$. 4

2. State the variable part of $5xy$. xy

3. Classify each of the following as a **monomial**, **binomial**, **trinomial**.

a) $x^2y - 3z$ binomial

b) $2xyz$ monomial

4. Simplify.

a) $-7x - 3x$

$= -10x$

b) $8x - 3 + x - 1$

$= 9x - 4$

c) $-7x - 4y + 8x - y$

$= x - 5y$

d) $(3x)(5x)$

$= 15x^2$

e) $(6x)(-2x)$

$= -12x^2$

f) $(-8x)(-4x)$

$= 32x^2$

g) $6(x+11)$

$= 6x + 66$

h) $-5(2y-4)$

$= -10y + 20$

i) $-(8-2a)$

$= -8 + 2a$

j) $x(3x-7)$

$= 3x^2 - 7x$

k) $2x(x+8)$

$= 2x^2 + 16x$

l) $-7(5x^2 + 2x - 4)$

$= -35x^2 - 14x + 28$

5. Expand and simplify.

a) $(5x-11) + (3x+4)$

$= 5x - 11 + 3x + 4$

$= 8x - 7$

b) $(-4y+1) - (7y-2)$

$= -4y + 1 - 7y + 2$

$= -11y + 3$

c) $3(x-1) - 6(5x+3)$

$= 3x - 3 - 30x - 18$

$= -27x - 21$

d) $-2x(3x-1) - 6x(5x+3)$

$= -6x^2 + 2x - 30x^2 - 18x$

$= -36x^2 - 16x$

6. Simplify by collecting like terms and then evaluate for $x = -4$ and $y = -\frac{1}{2}$.

$$6x - 3y - 5x + 2y + 5x + y$$

$$= 6x$$

$$= 6(-4)$$

$$= -24$$