

EXPRESSIONS REVIEW WORKSHEET

Match a-e to #1-4

- a. algebra
- b. degree of a term
- c. expression
- d. term
- e. variable

- _____ 1. the sum of the exponents on the variables in a single term
- _____ 2. a symbol that represents an unknown number
- _____ 3. a branch of mathematics that uses symbols to represent unknown numbers or quantities
- _____ 4. in $10p+7$, $10p$ is an example of this, so is 7

Match a-e to #5-8

- a. binomial
- b. monomial
- c. opposite expressions
- d. polynomial
- e. trinomial

- _____ 5. two expressions that add to zero
- _____ 6. the specific name for an expression with one term
- _____ 7. the specific name for an expression with three terms
- _____ 8. an algebraic expression made up of terms connected by operations of addition and/or subtraction

Match a-e to #9-12

- a. binomial
- b. coefficient
- c. degree of a polynomial
- d. degree of a term
- e. like terms

- _____ 9. the variable is the same but the coefficient may be different
- _____ 10. the specific name for an expression with two terms
- _____ 11. in the term $2s^4t^3$ this is equal to 7
- _____ 12. in the expression $4m^3+2mn-2n^2$ this is equal to 3

Match a-e to #13-17

a. $-4x$

b. $-4x-8$

c. $-6.2x^2$

d. $4x^2$

e. $5x^2-4x$

f. $8x^2+12x$

____ 13. $(3.1x)(-2x)$

____ 14. $\frac{-8x^2}{2x}$

____ 15. $(4x)(2x+3)$

____ 16. $\frac{15x^2-12x}{3}$

____ 17. $\frac{(x+2)(-4x)}{x}$

18. Simplify the following by combining like terms.

$$4y-3y^2+y-3y^2+2y^2+2y$$

$$3r-5r^2-3+6r^2-5r+3+2r^2+2$$

19. Add the following polynomials.

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

$$(6k^2-3k+6)+(-3k^2-5k-3)$$

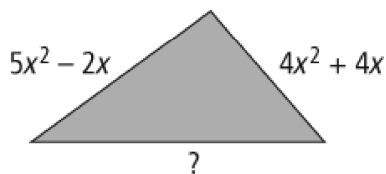
20. Subtract the following polynomials.

$$(2n+5)-(-3n-2)$$

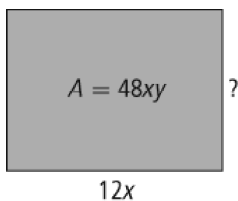
$$(3q^2-2q-2)-(-2q^2-5q-6)$$

21. Tony wants to sell some of his old CDs and computer games so he can buy a new game machine. The new machine will cost \$300. He plans to spend \$25 advertising the 21 CDs and 16 computer games he has to sell.
- a) Write an expression to show how much money Tony will receive from selling his CDs and games.
- b) If Tony sells his CDs for \$6 each and his games for \$9 each, will he have enough to buy the new machine?
22. A rectangle's length is 15 cm greater than twice its width, w .
- a) Draw the rectangle and label its dimensions. b) Write and simplify an expression for its perimeter. c) Write and simplify an expression for its area.

23. The perimeter of the triangle below can be represented by the polynomial $14x^2 + 8x$. What is the missing side length?



24. Using the rectangle



- a) What is the missing side length?
- b) What is the perimeter?

25. Solve:

$$(-6t)(-5t)$$

$$4x(6x - 2)$$

$$(-f)(3f - 7)$$

$$\frac{24n^2 + 18n}{6n}$$

$$\frac{-15x^2 + 35x}{5x}$$

$$\frac{-90y^2 + 9y}{-9y}$$

Write a simplified expression for the area of this figure. What is the area of the figure?

