

Math Worksheet for 6th Grade

Parts of algebraic expressions

1. What is a variable? Give a short definition in your own words.
2. In the expression $7x + 4$, which letter is the variable?
3. Circle the variables in these expressions: $3a + 5$, $9 + b$, $4(2 + c)$.
4. Which of these symbols could be a variable: 5, x, +, y, 0?
5. Write one example of an expression that uses the variable n.
6. How many terms are in $3x + 5$?
7. List the terms in $8 + 2y - 3z$.
8. How many terms are in $4m - 7 + 2m$?
9. Identify the terms in: $5p - q + 12 - 3p$.
10. Is the number 6 a term in the expression $6 + x$? Explain briefly.
11. What is a coefficient? Give a short definition.
12. In $7x + 2$, what is the coefficient of x?
13. In $-x + 4$, what is the coefficient of x?
14. In $5ab + 3$, what is the coefficient of ab?
15. In the expression $9 - 2y + 3y$, what are the coefficients of y?
16. Find the coefficient of t in $0.5t + 8$.
17. In 12, is there a coefficient of any variable? Explain.
18. Identify the coefficient in each term: $6x$, $-4y$, 3, x.
19. True or False: In the expression $2x$, the 2 is a factor. (Answer True or False.)
20. What are the factors of the product $5x$?
21. In the product $(3)(x + 4)$, name one factor.
22. List the factors of $12x$ in simplest form.
23. In the expression $4(x + 2)$, is 4 a factor or a coefficient? Explain briefly.
24. If an expression is written $7ab$, what are its factors?
25. Rewrite $3 \times y$ without the multiplication sign (use the common algebra form).
26. Rewrite $6x$ as a multiplication sentence using the multiplication sign.
27. Explain why we usually do not write the multiplication sign between a number and a variable (one short sentence).
28. What does $5x$ mean? (Write a short interpretation in words.)
29. Write an expression for: "Sam has s stickers and gets 4 more."
30. Write an expression for: "A box contains b pencils; each student gets 3 boxes. How many pencils total?"
31. If $x = 4$, evaluate $3x + 2$.
32. If $m = 5$, what is $2m - 7$?



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Name: _____

Due Date: _____

Teacher: _____

Parent Sign: _____

33. Evaluate $4n$ when $n = 0$.
34. The expression $3x$ represents 3 times x . If x is the number of apples, explain what $3x$ tells you about apples.
35. Identify the variable, terms, and coefficient(s) in the expression $2a + 9$.
36. For the expression $-5y + 11$, identify the variable, coefficient, and constant term.
37. Which is the coefficient in $-2ab + 7$? (Give the coefficient of ab .)
38. In the expression $10 - 3x + 2y$, list the terms and their coefficients (where applicable).
39. Convert the verbal phrase to an algebraic expression: "Seven more than twice a number k ."
40. Convert the phrase to algebra: "The product of 4 and a number t , decreased by 6."
41. True or False: In the expression xy , x and y are being multiplied even though there is no multiplication sign.
42. Write an expression for: "A farmer plants r rows of trees with 6 trees in each row." Then name the factors.
43. Which is larger: the coefficient or the variable in $12z$? (Explain what each part is.)
44. If $p = 3$ and $q = 2$, evaluate $4p + q$.
45. Identify the implied multiplication in each and rewrite with a dot or x : a) $7x$ b) $5(2 + x)$ c) $3ab$
46. Maya has m marbles. She buys 2 packs with 6 marbles each and then gives away 4 marbles. Write an expression for how many marbles Maya has now.
47. True or False: In $-x$, the coefficient of x is 1. If False, correct it.
48. In $2(x + 3)$, what are the two factors that make the product?
49. Write an expression for: "Three times a number n , plus 5."
50. Explain in one sentence why it is helpful to use letters (variables) in math word problems.