



Name: \_\_\_\_\_

Due Date: \_\_\_\_\_

Teacher: \_\_\_\_\_

Parent Sign: \_\_\_\_\_

## Math Worksheet for 6th Grade

### Distributive property with variables

1. Expand:  $3(x + 4)$
2. Expand:  $5(a + 2)$
3. Expand:  $2(3x + 5)$
4. Simplify:  $4(x + 7) + 2x$
5. Expand:  $-2(x - 5)$
6. Expand:  $6(2y + 3)$
7. Simplify:  $3(x + 4) - 2x$
8. Simplify:  $2(4m + 1) + 3m$
9. Expand:  $-3(2x - 4)$
10. Expand:  $7(p + 0)$
11. Evaluate: If  $x = 2$ , find  $4(x + 3)$
12. Evaluate: If  $a = -1$ , find  $5(a + 4)$
13. Expand:  $x(5 + 2)$
14. Simplify:  $3(x + 2) + 4(x - 1)$
15. Simplify:  $2(2x + 3) - x$
16. Expand:  $-4(y + 6)$
17. Simplify:  $5(n - 2) + 2n$
18. Evaluate: If  $y = 3$ , find  $2(3y + 1)$
19. Expand:  $8(x - 2)$
20. Simplify:  $-2(3a + 4) + 5a$
21. Expand and simplify:  $4(2x + 3) - 3(x + 1)$
22. Evaluate: If  $x = -2$ , find  $-3(x + 5)$
23. Expand:  $0(x + 7)$
24. Simplify:  $6(x + 2) + 3(x + 4)$
25. Word problem: Each box holds  $(x + 3)$  pencils. There are 5 boxes. Write an expression for the total number of pencils and expand.
26. Word problem: A shirt costs  $a$  and  $t$  are added. For 4 shirts, write and expand the expression for the total cost.
27. Simplify:  $3(x + 5) - 2(x - 1)$
28. Expand:  $-1(x - 6)$
29. Simplify:  $x(2 + 7) + 3$
30. Evaluate: If  $m = 4$ , find  $3(m + 2) + 2m$
31. Word problem: Sam buys 3 packs; each pack has  $(2n - 1)$  cards. Write an expression for the total cards and expand.



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32. Expand:  $-5(x + 2) + 10$
33. Simplify:  $2(x + 3) + 4(x - 2) - x$
34. Evaluate: If  $p = 1$ , find  $4(p + 5) - 3p$
35. Expand:  $3(2a + 4) + a$
36. Simplify:  $-2(x - 3) + 4(x + 1)$
37. Word problem: A gardener plants 6 rows; each row has  $(x - 2)$  flowers. Write expression for total flowers and expand.
38. Expand:  $7(y - 3) - 2y$
39. Evaluate: If  $x = 5$ , compute  $5(x - 2) + 3$
40. Simplify:  $4(3x + 2) - 6x$
41. Expand:  $-3(x + x + 2)$
42. Simplify:  $5(x + 1) - (x + 4)$
43. Word problem: Movie tickets cost  $7$  each plus a  $1$  service fee per person. For  $t$  people write and expand the expression for the total cost.
44. Expand:  $2(4n - 5) + 3n$
45. Simplify:  $(x + 2) + 3(x + 2)$
46. Evaluate: If  $a = 3$ , find  $-2(a - 5) + a$
47. Expand:  $6(x - 0)$
48. Simplify:  $-4(2x + 3) + 8x$
49. Word problem: Anna earns  $b$  per hour plus a  $5$  bonus per day. For 3 days write and expand the expression for her total earnings.
50. Simplify:  $2(x + 3) - 3(x + 1) + x$