School786
AN ONLINE SCHOOL

Name: Due Date: Teacher: Parent Sign:

Questions

1. Expand: $3(x + 4)$

2. Expand: $5(2x - 3)$

3. Expand: $-2(x + 7)$

4. Expand and combine like terms: $4(x + 3) + 2x$

5. Expand: $7(3x - 2)$

6. Expand and simplify: $-3(2x - 5) + 4x$

7. Simplify: $2(3x + 1) - (x + 5)$

8. Simplify: $-4(x - 2) + 3(2x + 1)$

9. Expand: $(x + 5) + 2(x - 3)$

10. Expand: $-1(4x + 7)$

11. Simplify: $6(x - 4) - 2(3x + 1)$

12. Expand and evaluate: $3(x + 2)$ when $x = 4$

13. Simplify: $9(x + 0)$

14. Simplify: $2(2x - 3) + 3(x + 4)$

15. Expand and simplify: $-5(x - 6) + 30$

16. Factor: $12x + 8$

17. Factor: $15x + 10$

18. Factor: $18x - 12$

19. Factor: $-9x - 6$

20. Factor: $14x + 28$

21. Combine then factor: $6x + 9 + 3x$

22. Factor: $20x - 5$

23. Factor: $-8x + 24$

24. Factor: $27x + 18$

25. Factor completely: $4x - 6 + 8x$

26. True or False: $2(x - 5)$ is equivalent to $2x - 10$.

27. True or False: $-(x + 4)$ is equivalent to $-x - 4$.

28. True or False: $-3(x - 2)$ is equivalent to $-3x + 6$.

29. Simplify: $-(2x - 7) + 5$

30. Simplify: $-2(-x + 3)$

31. Simplify: $5 - (3x + 2)$

Math Worksheet for 7th Grade
The distributive property & equivalent expressions
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32. True or False: -4(x + 2) is equivalent to -4x - 8.

33. Rewrite by distributing the negative sign: -1(5x - 9)

34. Simplify: 3(-2x - 4) + 6

35. Evaluate: -2(x - 5) when x = 3

36. Simplify: -(-3x + 4)

37. Factor: 21x - 14

38. Write two different equivalent expressions for 8x - 12 using the distributive property (give them in factored/distributed forms).

39. Expand and simplify: (2x - 3) + 4(x + 1)

40. Factor: 10x + 15 - 5x

41. Word problem: A book costs $x. Sam buys 3 books and 2 bookmarks (each bookmark costs $2). Write an expression for the total cost and simplify.

42. Word problem: The length of a rectangle is (3x + 2) and the width is (x - 1). Write an expression for the area and expand.

43. Word problem: A movie outing costs $5 for the ticket and s dollars for snacks per person. For a group of 4 people, write the total cost (both factored and expanded forms).

44. Word problem with negative change: Temperature is 10°C and it drops by t degrees every hour for 3 hours. Write an expression for the final temperature.

45. Factor: -6x - 9

46. Simplify: 5(x + 2) - 3x

47. Simplify: 12 - 3(x + 4)

48. Evaluate and simplify: 2(x - 3) - 3(x - 1) when x = 5

49. Expand and simplify: -2(2x + 5) + 4(x - 1)

50. Word problem: A gardener plants 5 rows with (x + 3) flowers in each row. Write an expression for the total number of flowers and give one equivalent expanded form and one factored form.