Name: _____ Date: _____

Combining Like Terms

Grades 6–7 • 40 questions • Part A: simplify by combining like terms

1. $5x + 5 + 5x =$ _____
2. $5y + 1 + 6y =$ _____
3. $5x + 7 + 6x =$ _____
4. $4y + 5 + y =$ _____
5. $2x + 1 + 9x + 2 =$ _____
6. $5n + 7 + 5n + 3 =$ _____
7. $8x + 4 - 2x + 9 =$ _____
8. $x - 4x - 6 =$ _____
9. $3x + 3 - x + 8 =$ _____
10. $4x + 3x + 4 =$ _____
11. $6n + 9 - 3n - 8 =$ _____
12. $9n + 8 - 7n + 9 =$ _____

Part B • Expand the brackets. Multiply every term inside

13. $7(2x + 1) =$ _____
14. $4(x + 6) =$ _____
15. $3(x + 8) =$ _____
16. $5(2x - 2) =$ _____
17. $9(x + 2) =$ _____
18. $5(x - 9) =$ _____
19. $3(x - 7) =$ _____
20. $-4(3x - 4) =$ _____
21. $-7(2x - 9) =$ _____
22. $-2(3x - 5) =$ _____

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Part C • Expand, then simplify • Part D: factor • Part E: write the perimeter in simplest form

23. $4(x - 7) + 6x + 6 =$ _____

24. $6(x + 1) + 5x - 8 =$ _____

25. $2(x - 1) + 6x - 5 =$ _____

26. $5(x + 3) - 4x + 2 =$ _____

27. $2(x - 2) + 2x + 7 =$ _____

28. $3(x - 5) - x + 2 =$ _____

29. $4(x - 7) + 5x + 7 =$ _____

30. $6(x - 1) + 6x - 2 =$ _____

31. $5(x + 1) - x + 7 =$ _____

32. $5(x + 2) + 2x + 2 =$ _____

Part D • Factor by taking out the greatest common factor

33. $6x + 9 =$ _____

34. $10x - 15 =$ _____

35. $8x + 12 =$ _____

36. $14x - 21 =$ _____

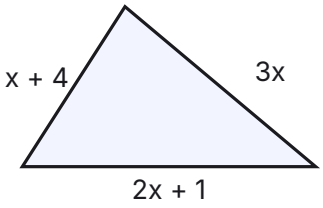
Part E • Write the perimeter of each shape as a simplified expression

37.



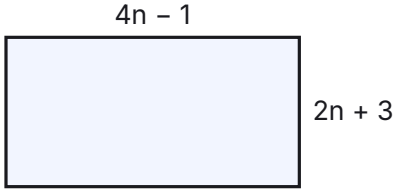
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38.



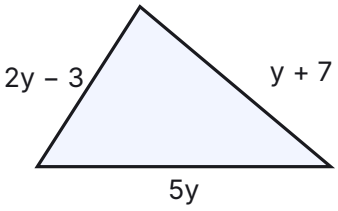
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39.



_____

40.



_____

Answer Key — Combining Like Terms

1. $10x + 5$
2. $11y + 1$
3. $11x + 7$
4. $5y + 5$
5. $11x + 3$
6. $10n + 10$
7. $6x + 13$
8. $-3x - 6$
9. $2x + 11$
10. $7x + 4$
11. $3n + 1$
12. $2n + 17$
13. $14x + 7$
14. $4x + 24$
15. $3x + 24$
16. $10x - 10$
17. $9x + 18$
18. $5x - 45$
19. $3x - 21$
20. $-12x + 16$
21. $-14x + 63$
22. $-6x + 10$
23. $10x - 22$
24. $11x - 2$
25. $8x - 7$
26. $x + 17$
27. $4x + 3$
28. $2x - 13$
29. $9x - 21$
30. $12x - 8$
31. $4x + 12$
32. $7x + 12$
33. $3(2x + 3)$
34. $5(2x - 3)$
35. $4(2x + 3)$
36. $7(2x - 3)$
37. $8x + 4$
38. $6x + 5$
39. $12n + 4$
40. $8y + 4$