

Simplification Review

Name _____

Perform all indicated operations and simplify. **SHOW YOUR WORK.** Leave no double signs! **Circle** final answers.

1. $3x - 4 + 2x + 6$

2. $8xy + 3x - 2yx - 4 + 2x$

3. $9 - 5a^2 - 4a^2 + 7$

4. $6m^2n + 4m - 2nm^2 - 7$

5. $5x^3y + 4xy^3 - 2yx^3$

6. $13c + 4 - 8d - 9 - 15c$

7. $4(3x - 9) + 2$

8. $6 + 2(-5y + 7)$

9. $-8(5x + 7)$

10. $-8(5x - 7)$

11. $-8(-5x + 7)$

12. $-8(-5x - 7)$

13. $2(9x + 4) - 6(2 - 3x)$

14. $5 - (n + 3) + 3n$

15. $-(h - 5) - 10$

16. $24x + (-3x) - (-6x) - 8x$

17. $16 - (2x - 4)$

18. $16 - 10(2x - 4)$

19. $-4 - (5x + 6)$

20. $-4 - 7(5x + 6)$

21. $3 + 2(3n - 5)$

22. $(3 + 2)(3n - 5)$

23. $6(4 - x) + 13(x - 1)$

24. $6(4 - x) + (13x - 1)$

25. $8(7q + 8) - (5q + 3)$

26. $8(7q + 8) - 5(q + 3)$

27. $8(7q + 8) - 5q + 3$

28. $-21u + 21uv - 2v$

29. $-(16t - 14u + 12v)$

30. $\frac{2}{3}(21a - 36b)$

31. $\frac{7}{4}(28m + 32n - 8p)$

32. $-\frac{2}{7}(-14x + 35y + 7)$

Circle the ERROR(s) in the following simplifications. Then correctly simplify each expression.

33. $-2(3x + 5)$

Your work here

$$\textcircled{-6x + 10}$$

34. $6 + 3(4n - 2)$

Your work here

$$9(4n - 2)$$

$$\textcircled{36n - 18}$$

35. $4(5z + 9) - 2z$

Your work here

$$20z + 36 - 8z$$

$$\textcircled{12z + 36}$$

36. $3y^2 - 15y + 7y^2 + 3$

Your work here

$$\textcircled{10y^4 - 15y + 3}$$

Evaluate each of the following for $x = 4$, $y = -3$, and $z = -8$.

37. $2x^2 + 5y$

38. $|xyz|$

39. $\frac{x}{2y + z}$

40. $\frac{1}{3}(zx - 4)$

Answer Key to Simplification Review

1. $5x + 2$

3. $16 - 9a^2$

5. $3x^3 + 4xy^3$

7. $12x - 34$

9. $-40x - 56$

11. $40x - 56$

13. $36x - 4$

15. $-h - 5$

17. $20 - 2x$

19. $-10 - 5x$

21. $6n - 7$

23. $11 + 7x$

25. $51q + 61$

27. $51q + 67$

29. $-16t + 14u - 12v$

31. $49m + 56n - 14p$

33. error "+"; $-6x - 10$

when you distribute $(-2)(+5)$ equals -10

35. error "-8z"; $18z + 36$

you stop the distribution of 4 at the end of the parenthesis

37. 17

39. $-2/7$

2. $6xy + 5x - 4$

4. $4m^2n + 4m - 7$

6. $-2c - 5 - 8d$

8. $20 - 10y$

10. $-40x + 56$

12. $40x + 56$

14. $2 + 2n$

16. $19x$

18. $56 - 20x$

20. $-46 - 35x$

22. $15n - 25$

24. $23 + 7x$

26. $51q + 49$

28. No change (no like terms)

30. $14a - 24b$

32. $4x - 10y - 2$

34. error "9"; $12n$

adding the 6 and 3 breaks the order of ops

36. error "4"; $10y^2 - 15y + 3$

exponents do not change when you add

38. 96

40. -12