

PROBLEM RECOGNITION EXERCISES

Name: _____ Section: _____

Equations and Expressions

For Exercises 1-32, identify each exercise as an expression or an equation. Then simplify the expression or solve the equation.

1. $2b + 23 - 6b - 5$

2. $10p - 9 + 2p - 3 + 8p - 18$

3. $\frac{y}{4} = -2$

4. $-\frac{x}{2} = 7$

5. $3(4h - 2) - (5h - 8) = 8 - (2h + 3)$

6. $7y - 3(2y + 5) = 7 - (10 - 10y)$

7. $3(8z - 1) + 10 - 6(5 + 3z)$

8. $-5(1 - x) - 3(2x + 3) + 5$

9. $6c + 3(c + 1) = 10$

10. $-9 + 5(2y + 3) = -7$

11. $0.5(2a - 3) - 0.1 = 0.4(6 + 2a)$

12. $0.07(2v - 4) = 0.1(v - 4)$

13. $-\frac{5}{9}w + \frac{11}{12} = \frac{23}{36}$

14. $\frac{3}{8}t - \frac{5}{8} = \frac{1}{2}t + \frac{1}{8}$

15. $\frac{3}{4}x + \frac{1}{2} - \frac{1}{8}x + \frac{5}{4}$

16. $\frac{7}{3}(6 - 12t) + \frac{1}{2}(4t + 8)$

17. $2z - 7 = 2(z - 13)$

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18. $-6x + 2(x + 1) = -2(2x + 3)$

19. $\frac{2x-1}{4} + \frac{3x+2}{6} = 2$

20. $\frac{w-4}{6} - \frac{3w-1}{2} = -1$

21. $4b - 8 - b = -3b + 2(3b - 4)$

22. $-k - 41 - 2 - k = -2(20 + k) - 3$

23. $\frac{4}{3}(6y - 3) = 0$

24. $\frac{1}{2}(2c - 4) + 3 = \frac{1}{3}(6c + 3)$

25. $3(x + 6) - 7(x + 2) - 4(1 - x)$

26. $-10(2k + 1) - 4(4 - 5k) + 25$

27. $3 - 2[4a - 5(a + 1)]$

28. $-9 - 4[3 - 2(q + 3)]$

29. $4 + 2[8 - (6 + x)] = -2(x - 1) - 4 + x$

30. $-1 - 5[2 + 3(w - 2)] = 5(w + 4)$

31. $\frac{1}{6}y + y - \frac{1}{3}(4y - 1)$

32. $\frac{1}{2} - \frac{1}{5}\left(x + \frac{1}{2}\right) + \frac{9}{10}x$