Kerry Ojakian's MTH 28.5 Class
Class Assignment #7

Determine whether the given value of the variable is a solution of the given equation.

1. $x = 2$, of $2x + 6 = 10$
2. $x = 4$, of $2x - 2 = -5$
3. $x = (-1)$, of $2(x + 4) = 3(x + 3)$
4. $x = 5$, of $4(x - 2) = 4x - 8$
5. $x = (-2)$, of $2x + 6 = 3x + 8$
6. $x = 4$, of $3x + 6 = 5x - 2$
7. $x = \frac{2}{3}$, of $3x - 2 = 0$
8. $x = -\frac{2}{3}$, of $3x + 2 = -2$

Solve each equation by guessing and checking.

9. $y - 5 = 20$
10. $y - 5 = -20$
11. $4x = 8$
12. $\frac{x}{2} = 50$
13. $2x = 2x + 1$
14. $x + 5 = x + 3 + 2$

Solve the following equations.

15. $2x + 7 = 15$
16. $5x - 4 = 18$
17. $7x - 5 = 12$
18. $6 - 2x = 14$
19. $-8 - 7x = -1$
20. $-5x + 7 = 12$
21. $6x - 5 = 2x - 13$
22. $4x + 2 = 2 + x$
23. $4 = 2 + x$
24. $\frac{x}{5} + 6 = 9$
25. $\frac{5x}{2} = 15$
26. $\frac{-4x}{3} = -16$
27. $\frac{-2x}{3} = 8$
28. $\frac{x}{2} - 4 = 7$
29. $\frac{5x}{3} + 6 = -5$

30. Solve: $3(x+3) = 2x + 15$

    The solution is the number of NBA championships won by Michael Jordan. How many did he win?

31. Solve the equation: $5.2x - 7 = 2.2x + 8$

    The solution is the age Jennifer Lopez began dancing and singing lessons. How old was she?

32. Solve: $2x - 3 + 5x = 4 + 4x + 1$

    3 times the solution is the number of siblings Michael Jackson had. How many siblings did Michael Jackson have?

Solve the following equations.

33. $5(x-4) = 18$
34. $-(x-5) + 4 = 12$
35. $2(x+7) - 4 = 15 - 2(x-3)$
36. $6 - 2(x+3) = 14 - 3(x+1)$
37. $8 - (x+3) = 9 - (x+4)$
38. $-5(x+3) = 4 - 5x$

For each equation determine if it is 1) An identity, i.e. always true, 2) A contradiction, i.e. no solution, or 3) Conditional, i.e. sometimes true and sometimes false.

39. $x = x + 2$
40. $x = 4x$
41. $x + 2x + x + 7 = 4x + 7$
42. $5(x-1) + 3 = 5x - 2$
43. $-(x-2) + 4 = 7 - x$
44. $2(x+1) - 1 = 3 - x$
45. $6x - 2(x+3) = -(4x+6)$
46. $2 - (x+1) = 5 - 2(x-1)$
47. $-2(x-2) + 2(x-2) = 1$