Math on the Fly!

NAME: _____ DATE: _____

Solving Absolute Value Equations

Solve each equation, if possible.
If the equation does not have a solution, write “no solution”.

1. $|x| = 6$

2. $|x| = 0$

3. $|x| = -3$

4. $|x + 2| = 5$

5. $|x - 4| = 7$

6. $|8 + x| = 1$

7. $|2x - 1| = 3$

8. $|9x + 6| = -8$

9. $|5x + 10| = 0$

10. $\left|\frac{x}{4} + 3\right| = -2$

11. $\left|x + \frac{1}{2}\right| = \frac{3}{2}$

12. $\left|\frac{x}{3} - 2\right| = 9$

13. $|x - 7| + 5 = 8$

14. $|7x| - 19 = -5$

15. $|9x| - 4 = -4$

16. $|x + 1| + 4 = 3$

17. $\frac{2}{3}|x - 6| = 10$

18. $\frac{1}{7}|5 - 2x| = 1$

SOLUTIONS

1. $x = 6 , x = -6$

2. $x = 0$

3. No solution

4. $x = 3 , x = -7$

5. $x = 11, x = -3$

6. $x = -7 , x = -9$

7. $x = 2 , x = -1$

8. No solution

9. $x = -2$

10. No solution

11. $x = 1 , x = -2$

12. $x = 33 , x = -21$

13. $x = 10 , x = 4$

14. $x = 2 , x = -2$

15. $x = 0$

16. No Solution

17. $x = 21 , x = -9$

18. $x = 6 , x = -1$