

Name _____

Date _____

Advanced Algebra

Unit 2: Family of Functions

I can solve an absolute Value Equation

Example: Solve $3|x + 2| + 1 = 13$

$3|x + 2| = 12$ Subtract

$|x + 2| = 4$ Divide

$x + 2 = 4$ or $x + 2 = -4$ Definition of absolute value

$x = 2$ or $x = -6$

The answer is $x = 2$ or $x = -6$

Solve the following. If there is no solution, write "no solution"

1) $ x = 8$	2) $ x + 6 = 9$
3) $ x - 3 = 8$	4) $ x + 9 = 12$
5) $ x - 1 = -4$	6) $ 4x = 24$
7) $\left \frac{x}{3}\right = 6$	8) $ 2x + 1 = 25$

9) $2 x =80$	10) $ 3x + 1 =10$
11) $ x + 5 +1=11$	12) $2 x -10=100$
13) $0.2 x -.2=1.8$	14) $ x + 9 -5=-5$
15) $ x - .5 +2=15$	16) $\left \frac{x}{4} + 2\right =7$
17) $ 3x + 0.1 = 6$	18) $ 3 - 2x =8$
19) $4 x - 2 = 8$	20) $ 2x - 7 +8=5$