Name_____

ABSOLUTE VALUE EQUATIONS #3

Directions: *Absolute Value Equations* typically have two solutions. For example, with the equation $|x| = 9$, x could equal 9 or -9, because both numbers are 9 units away from zero on a number line. For the *absolute value equations* below, you will have to solve two different equations to find both solutions.

Examples: $|x + 7| = 10$

x + 7 = 10 or x + 7 = -10

x = 3 or **x = -17**

$|2x + 4| = 10$

2x + 4 = 10 or 2x + 4 = -10

x = 3 or **x = -7**

1) $|x + 9| = 14$

x = _____

2) $|x - 8| = 22$

x = _____

3) $|x + 3| = 9$

x = _____

4) $|11 + x| = 15$

x = _____

5) $|x - 20| = 42$

x = _____

6) $|x + 3| = 21$

x = _____

7) $|x + 11| = 21$

x = _____

8) $|x - 2| = 12$

x = _____

9) $|3 + x| = 25$

x = _____