

Name: \_\_\_\_\_

**College Algebra: Quiz #1** (Solutions)

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1. Find all solutions of the following equation.

$$|5x + 6| + 8 = 29$$

**Solution:** First we get the absolute value by itself on one side of the equation.

$$|5x + 6| = 21$$

Now we can split this equation into two: we have

$$5x + 6 = 21 \quad \text{or} \quad 5x + 6 = -21.$$

Solving these equations separately gives two solutions:  $x = 3$  or  $-27/5$ .