**Study Guide and Intervention**

***Solving Absolute Value Equations***

**Absolute Value Expressions** The **absolute value** of a number is its distance from 0 on a number line. The symbol |*x*| is used to represent the absolute value of a number *x*.

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| **Absolute Value** | * **Words**

* **Symbols**
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**Example 1: Evaluate** $\left|\left.-4\right|\right.$ **–** $\left|\left.-2x\right|\right. $**if *x* = 6. Example 2: Evaluate** $\left|\left.2x-3y\right|\right.$ **if *x* = –4 and *y* = 3.**

**Exercises**

**Evaluate each expression if *w* = –4, *x* = 2, *y* =** $\frac{1}{2}$**, and *z* = –6.**

**1.** |2*x* – 8| **2.** |6 + *z*| – |–7| **3.** 5 + |*w* + *z*|

**4.** |*x* + 5| – |2*w*| **5.** |*x*| – |*y*| – |*z*| **6.** 5 |*w*| + 2 |*z* – 2*y*|