

8.R.1 Exercises

Concept Check

True/False. Determine whether each statement is true or false. If a statement is false, explain how it can be changed so the statement will be true. (**Note:** There may be more than one acceptable change.)

1. Equations involving absolute value can only have one solution.
2. If two numbers have the same absolute value, they must be equal to each other.
3. There is no number that has a negative absolute value.
4. If $|a| = |b|$, we can only rewrite it as $a = b$.

Practice

Solve each absolute value equation.

5. $|z| = -2.575$

6. $z = -|-2.33|$

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

$$8. 3\left|\frac{x}{3}+1\right|-5=-2$$

$$9. \left|\frac{x}{3}-4\right|=\left|\frac{5x}{6}+1\right|$$