

## 6-2 Skills Practice

### *Solving Exponential Equations and Inequalities*

Solve each equation.

1.  $25^{2x+3} = 25^{5x-9}$

2.  $4^{x-5} = 16^{2x-31}$

3.  $9^{-x+5} = 27^{6x-10}$

4.  $125^{3x-4} = 25^{4x+2}$

Solve each inequality.

5.  $\left(\frac{1}{36}\right)^{6x-3} > 6^{3x-9}$

8.  $64^{4x-8} < 256^{2x+6}$