Name: _____ Date: _____

2.3 Solving Inequalities Using Multiplication or Division

Essential Question: _____

There is no exploration for this section.

EXAMPLE 1 Multiplying or Dividing by Positive Numbers

Solve (a) $\frac{x}{8} > -5$ and (b) $-24 \geq 3x$. Graph each solution.

When mulitplying or _____ each _____ of an _____ by the same _____ number, the _____ of the inequality symbol must be _____ to produce an _____ inequality.

EXAMPLE 2 Multiplying or Dividing by Negative Numbers

Solve each inequality. Graph each solution.

a. $2 < \frac{y}{-3}$ **b.** $-7y \leq -35$

Extra Example

*** You earn $8.50 per hour working at the Dairy Shed. Write and solve an inequality that represents the number of hours you need to work to earn $187 to by a tablet.**