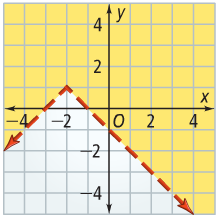
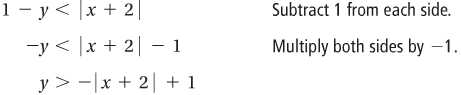
**Section 2–8B: Absolute Value Inequalities**

You can graph two-variable absolute value inequalities in the same way that you graph linear inequalities.

**Example 1: Graphing an Absolute Value Inequality**

What is the graph of ?



**\*\***

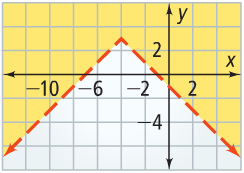
**\*\*You should remember to flip the sign when multiply or divide with a negative value!!**

The graph of is the graph of , reflected in the *x*-axis and translated left 2 units and up 1 unit.

Since the inequality is solved for and , shade the region above the boundary.

**Example 2: Writing an Inequality Based on a Graph**

What inequality does this graph represent?



The boundary is the graph of the absolute value function , translated. The vertex of is translated to **\*\***, so the boundary is the graph of .

**\*\*you should always look at the scale of the graph!!**

The solution is shaded above the boundary, so the inequality is either or . Since the boundary is a dashed line, the correct inequality is .