$\qquad$ Class $\qquad$ Date $\qquad$

## 3-3

## ELL Support

Solving Inequalities Using Multiplication or Division
Use the list below to complete the Venn diagram.

| If $a<b$ and $c>0$, then $a c<b c$. <br> If $a>b$ and $c>0$, then $a c>b c$. | If $a<b$ and $c<0$, then $\underset{\mathbf{c}}{\mathbf{a}}>\frac{\mathbf{b}}{\mathbf{c}}$. <br> If $a>b$ and $c<0$, then $\frac{\mathbf{a}}{\mathbf{c}}<\frac{\mathrm{b}}{\mathbf{c}}$. | Use inverse operations to solve. |
| :---: | :---: | :---: |
| If $a<b$ and $c<0$, then $\boldsymbol{a c}>\boldsymbol{b} \boldsymbol{c}$. <br> If $\boldsymbol{a}>\boldsymbol{b}$ and $\boldsymbol{c}<\mathbf{0}$, then $a c<b c$. | If you multiply or divide both sides of an inequality by a negative number, you need to reverse the inequality symbol to make the inequality true. | If $a<b$ and $c>0$, then $\frac{\mathbf{a}}{\mathbf{c}}<\frac{\mathbf{b}}{\mathbf{c}}$. <br> If $a>b$ and $c>0$, then $\underset{\mathbf{c}}{\mathbf{a}}>\frac{\mathbf{b}}{\mathbf{b}}$. |



