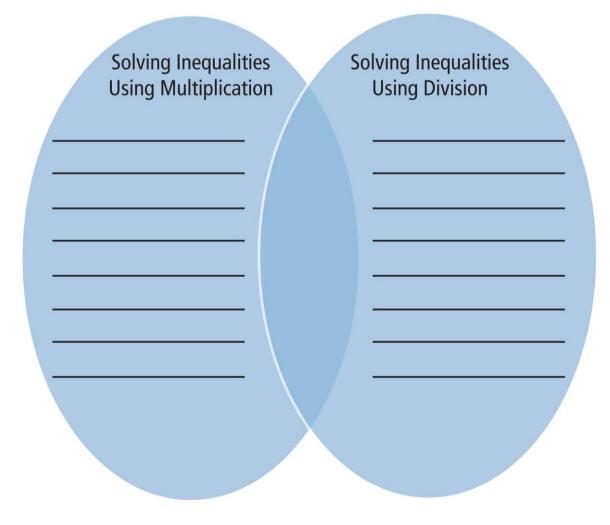
## **ELL Support** 3-3 Solving Inequalities Using Multiplication or Division

Use the list below to complete the Venn diagram.

If $a < b$ and $c > 0$ , then $ac < bc$ . If $a > b$ and $c > 0$ , then $ac > bc$ .	If $a < b$ and $c < 0$ , then $\frac{a}{c} > \frac{b}{c}$ . If $a > b$ and $c < 0$ , then $\frac{a}{c} < \frac{b}{c}$ .	Use inverse operations to solve.
If <i>a</i> < <i>b</i> and <i>c</i> < 0, then <i>ac</i> > <i>bc</i> . If <i>a</i> > <i>b</i> and <i>c</i> < 0, then <i>ac</i> < <i>bc</i> .	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 $\frac{a}{c} < \frac{b}{c}$ . If $a > b$ and $c > 0$ , then $\frac{a}{c} > \frac{b}{c}$ .



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