## Sec 5.5 Solving Rational Inequalities

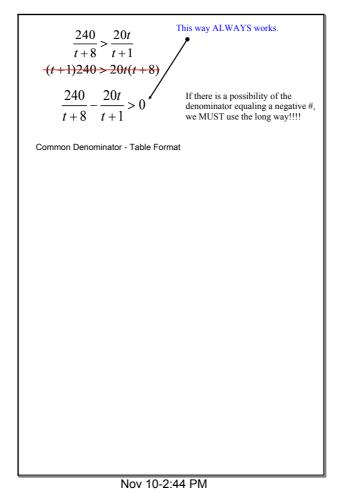
When we solve rational equalities, we can simply rearrange to set one side to zero and multiply by the denominators to simplify.

Ex: 
$$\frac{x+4}{x-3} = 0$$
$$x+4 = 0(x-3)$$
$$x+4 = 0$$
$$x = -4$$

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However, to solve an inequality we can rearrange and set to zero, but we can't multiply through by the denominator because it is a inequality sign not an equality sign.

$$\frac{240}{t+8} > \frac{20t}{t+1}$$
$$(t+1)240 > 20t(t+8)$$



Determine the solution set for:

$$\frac{-t}{4t-1} \ge \frac{2}{t-9}$$

## **Practice**

p296 #1, 4ace(note answer to a) is -5<x<-4.5), 5ace,9

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