

# Lesson 3-3 → Seventh Grade Tables to Eighth Grade Tables

Seventh Grade Proportional Relationships

Hours X	Miles Y
0	0
1	50
2	100
3	<span style="border: 1px solid black; padding: 2px;">?</span>

Eighth Grade Linear Functions

Hours X	Miles Y
0	50
1	100
2	150
3	<span style="border: 1px solid black; padding: 2px;">?</span>

Cross Multiplication Works!

$$\frac{\text{Miles}}{\text{hour}} = \frac{100}{2} = 3$$

$$100 \times 3 \div 2 = 150$$

Cross Multiplication DOES

NOT WORK!!!

## Eighth Grade Linear Functions

use  $\frac{\text{Change in } Y}{\text{Change in } X}$  to complete tables

	Hours X	Miles Y
	0	50
+1	1	100
+1	2	150
+1	3	<input type="text"/>
+2	5	<input type="text"/>

$\frac{\text{change in } Y}{\text{change in } X}$  is  $\frac{\text{we rise } 50}{\text{we run } 1}$

	2	150	
+1	3	<input type="text"/>	+50
+2	5	<input type="text"/>	+100

And... yes!

$\frac{\text{change in } y}{\text{change in } x}$  works for

proportional relationships too!

And... yes!

$\frac{\text{change in } y}{\text{change in } x}$  is just another way

of saying "slope" or  $\frac{\text{Rise}}{\text{Run}}$

It really is just the same thing!!!