

December 4, 2020

### Chapter 5 Lesson 4 Part 2

**Converting Rates** 

We have practiced converting UNITS. Now we need to apply that to converting RATES.

For example, instead of just changing miles to feet, we might change miles per hour to feet per second. We are going to learn by example.

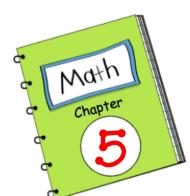
We will continue to use <u>dimensional</u> <u>analysis</u> That is, we will set up our units so our unwanted units <u>Cancel</u><u>OUT</u>.

Convert each rate. Round to the nearest hundredth. Must show conversion setup. Calculators of  
1. 
$$18 \text{ m/min} = \frac{1}{60} \frac{1}{5} \frac{1}{60} \frac{1}{5} \frac{1}{5} \frac{1}{5} \frac{1}{9} \frac{1}{1} \frac$$

Length			
Customary to Metric	Metric to Customary		
1 in = 2.54 cm	1 cm = 0.394 in		
1 ft = 0.305 m	1 m = 3.279 ft		
1 yd = 0.914 m	1 m = 1.094 yd		
1 mi = 1.609 km	1 km = 0.621 mi		
1	m = 100 cm		
1 km = 1000 m			
1	mi = 5280 ft		
	1 yd = 3 ft		

Capacity				
Customary to Metric	Metric to Customary			
1 fl oz = 29.574 mL	1 mL = 0.034 fl oz			
1 pt = 0.473 L	1 L = 2.114 pt			
1 qt = 0.946 L	1 L = 1.057 qt			
1 gal = 3.785 L	1 L = 0.264 gal			
1 L = 1000 mL				
1 c = 8 fl oz				
1 pt = 2 c				
1 qt = 2 pt				
1 gal = 4 qt				

Customary to Metric	Metric to Customary
1 oz = 28.350 g	1 g = 0.035 oz
1 lb = 0.454 kg	1 kg = 2.203 lb



# TETLE: Ratios and



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## \*on whiteboards

### Unit Conversions: Chapter 5 Lesson 4

#### Convert the following rates. Round to the nearest hundredth if needed.

1. Convert 35 miles to hour to km/h.

2. Convert 10.5 feet/sec to yards/min.

3. Convert 50 meters per second to km/h.

4. Convert 130 km/h to feet per second.

5. Convert 10 mL per second to Liters per minute.

6. Convert 5 gallons an hour to cups per second.

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