

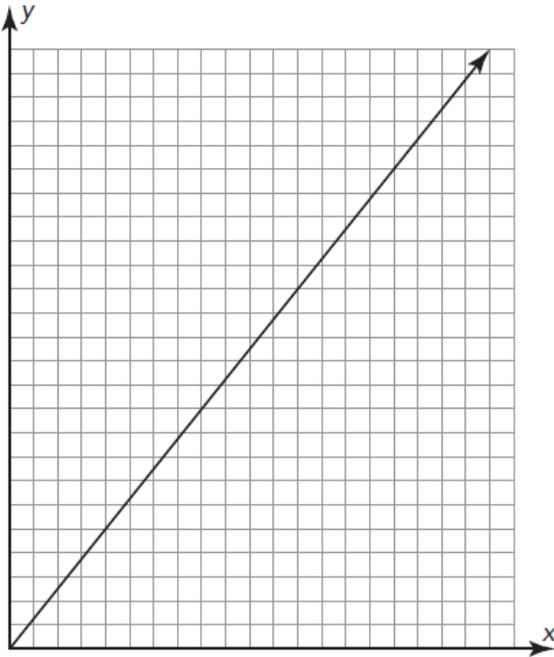
Objective **Multiple Representations of Unit Rates**

Warm-Up

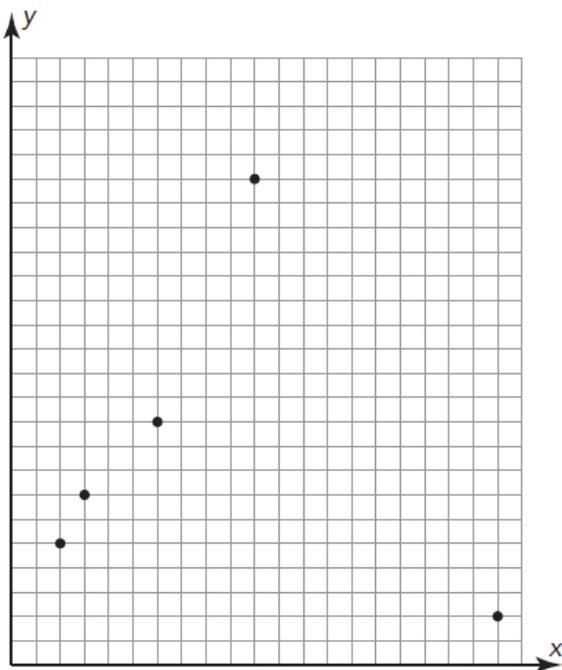


Copy each graph carefully and exactly in your notebook, then determine if it represents equivalent ratios. Explain your reasoning.

1.



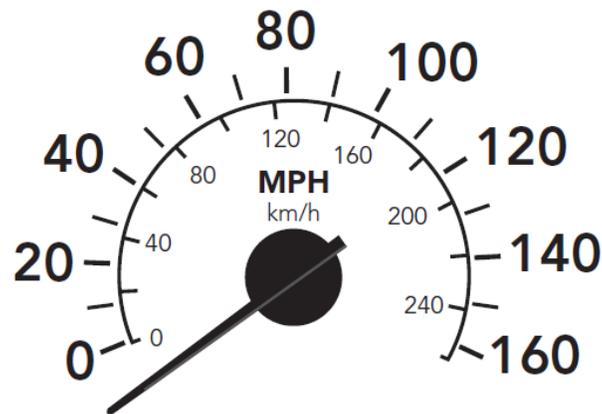
2.



GETTING STARTED

The Need . . . for Speed

In cars, a speedometer shows the driver the rate at which the car is moving—its speed. Many speedometers are like double number lines arranged in a circular shape. The top number line on this speedometer shows the rate in miles per hour (mph), and the bottom number line shows the rate in kilometers per hour (km/h).



Use the speedometer to estimate.

1. At about what rate, in kilometers per hour, is the car moving if it is traveling at 60 miles per hour?
2. At about what rate, in miles per hour, is the car moving if it is traveling at 60 kilometers per hour?
3. About how long would it take to drive 90 kilometers at 55 miles per hour? Explain your reasoning.

EXPLORE
1

Unit Rates in Tables and Graphs

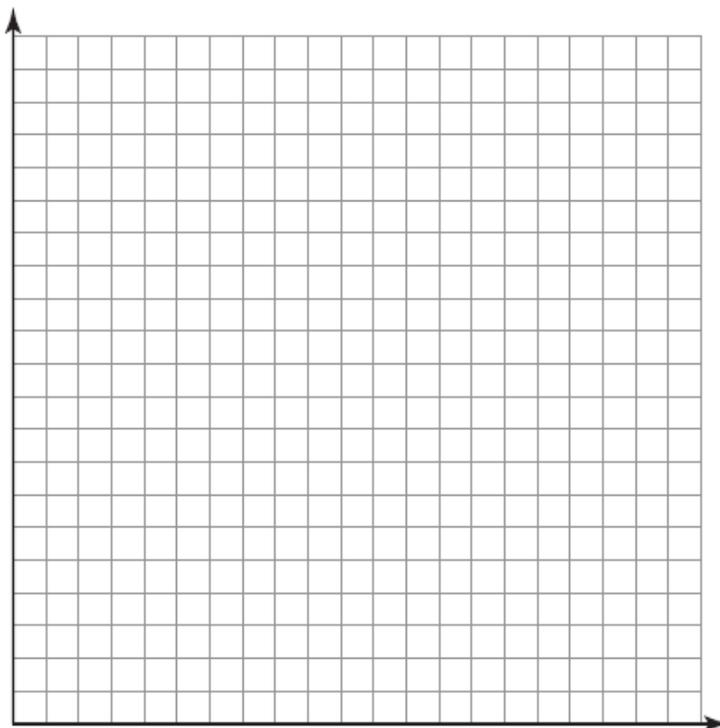


The 6th grade chorus made and sold their own mixture of trail mix at basketball games to raise money for an upcoming trip. During the first basketball game, they sold 1 lb bags for \$2.80. They got many requests to sell different sized bags of their trail mix. The group decided to vary the size of the bags, but wanted to make sure that the cost-to-pounds rate stayed the same.

1. Copy and complete the table to display the cost for various quantities of trail mix.

Trail Mix Weight (lb)	Cost (\$)
0.25	
0.5	
0.75	
1	
1.25	
1.5	

2. Create a graph from your table of values. Be sure to label the axes and name the graph.





LESSON 6.3a
Seeing Things Differently



Objective

Multiple Representations of Unit Rates

Practice

Harper bought 4 chairs for \$232. What is the unit price? How much will 6 chairs cost?

A painter uses 2 tubes of black paint for every 6 tubes of white paint to paint a mural. At that rate, how many tubes of black paint are used if 15 tubes of white paint are used?

At Bob's Binders, a set of 3 notebooks costs \$4.20. At Pam's Paper Place, a set of 4 notebooks costs \$5.20. What is the unit price of the notebooks at each store? Which is the better buy?