

Name _____

Date _____

Comparison Shopping—Unit Price and Related

Measurement Conversions

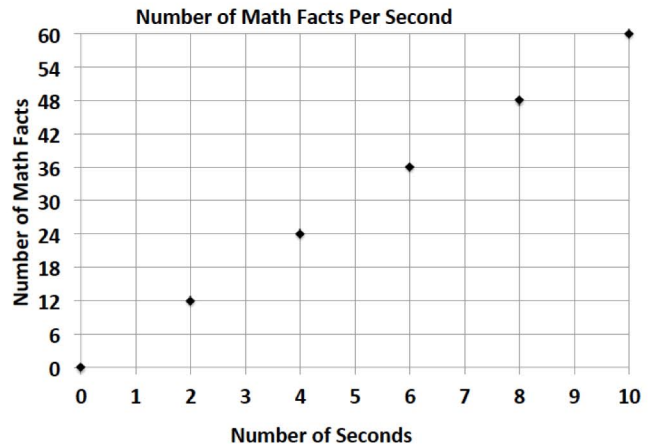
Kiara, Giovanni, and Ebony are triplets and always argue over who can answer basic math facts the fastest. After completing a few different math fact activities, Kiara, Giovanni, and Ebony recorded their data, which is shown below.

Kiara: $m = 5t$, where t represents the time in seconds and m represents the number of math facts completed

Giovanni:

Seconds	5	10	15
Math Facts	20	40	60

Ebony:



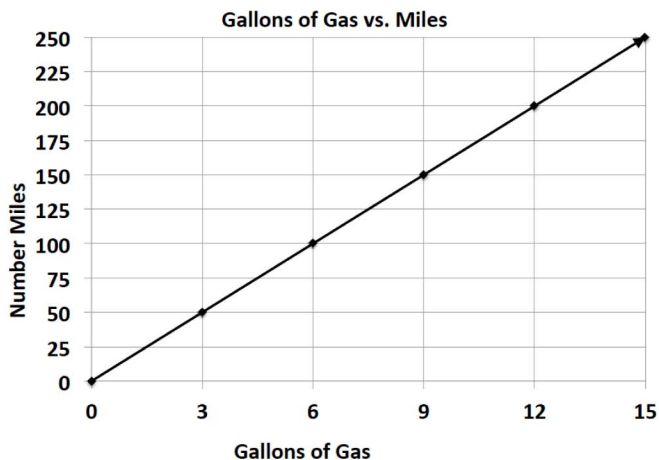
1. What is the math fact completion rate for each student?
2. Who would win the argument? How do you know?

Victor was having a hard time deciding which new vehicle he should buy. He decided to make the final decision based on the gas efficiency of each car. A car that is more gas efficient gets more miles per gallon of gas. When he asked the manager at each car dealership for the gas mileage data, he received two different representations, which are shown below.

Vehicle 1: Legend

Gallons of Gas	4	8	12
Number of Miles	72	144	216

Vehicle 2: Supreme



1. If Victor based his decision only on gas efficiency, which car should he buy? Provide support for your answer.
2. After comparing the Legend and the Supreme, Victor saw an advertisement for a third vehicle, the Lunar. The manager said that the Lunar can travel about 289 miles on a tank of gas. If the gas tank can hold 17 gallons of gas, is the Lunar Victor's best option? Why or why not?

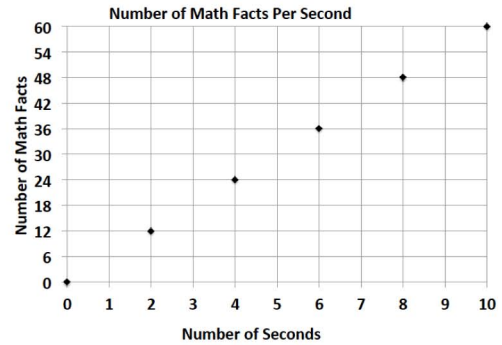
Kiara, Giovanni, and Ebony are triplets and always argue over who can answer basic math facts the fastest. After completing a few different math fact activities, Kiara, Giovanni, and Ebony recorded their data, which is shown below.

Kiara: $m = 5t$, where t represents the time in seconds and m represents the number of math facts completed

Giovanni:

Seconds	5	10	15
Math Facts	20	40	60

Ebony:



1. What is the math fact completion rate for each student?

Kiara: 5 math facts/second

Giovanni: 4 math facts/second

Ebony: 6 math facts/second

2. Who would win the argument? How do you know?

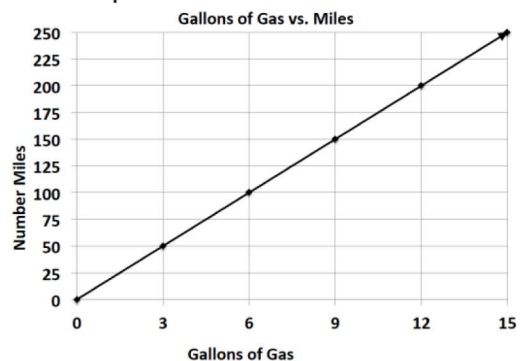
Ebony would win the argument because when comparing the unit rates of the three triplets, Ebony completes math facts at the fastest rate.

Victor was having a hard time deciding which new vehicle he should buy. He decided to make the final decision based on the gas efficiency of each car. A car that is more gas efficient gets more miles per gallon of gas. When he asked the manager at each car dealership for the gas mileage data, he received two different representations, which are shown below.

Vehicle 1: Legend

Gallons of Gas	4	8	12
Number of Miles	72	144	216

Vehicle 2: Supreme



1. If Victor based his decision only on gas efficiency, which car should he buy? Provide support for your answer.

Victor should buy the Legend because it gets 18 miles per gallon of gas, and the Supreme only gets $16\frac{2}{3}$ miles per gallon. Therefore, the Legend is more gas efficient.

2. After comparing the Legend and the Supreme, Victor saw an advertisement for a third vehicle, the Lunar. The manager said that the Lunar can travel about 289 miles on a tank of gas. If the gas tank can hold 17 gallons of gas, is the Lunar Victor's best option? Why or why not?

The Lunar is not a better option than the Legend because the Lunar only gets 17 miles per gallon, and the Legend gets 18 miles per gallon. Therefore, the Legend is still the best option.