

Name _____



© Citizen Math 2020

PART ONE: ON THE ROAD AGAIN


- 1 According to AAA, the average American drives around 11,000 miles each year. Imagine a driver is shopping for a new car and is debating between two models of the Toyota Camry: the standard engine (gasoline only) and the hybrid engine (gas + electric).

If the person divides their driving evenly between city and highway, how much will they spend on gas in a year with each model?



ENGINE TYPE		Standard 	Hybrid 
BASE PRICE		\$26,000	\$28,000
FUEL ECONOMY	CITY	28 miles per gallon	52 miles per gallon
	HIGHWAY	39 miles per gallon	52 miles per gallon

PRICE OF GAS



\$ _____ / gallon


- 2 Calculate how many years the average driver would need to own the hybrid before it became the better deal. Based on this, if someone were shopping for a new Camry, which model would you recommend – standard or hybrid – and why?

PART TWO: RUNNING ON FUMES

3 The average new car lasts around 12 years or 200,000 miles, whichever comes first. Choose one of the drivers below (or create your own). Then make the most convincing argument you can for which type of engine they should buy: standard or hybrid.

DRIVER	ANNUAL MILES, CITY	ANNUAL MILES, HWY.
Retiree	2,000	2,000
Salesperson	4,000	11,000
Lyft/Uber Driver	20,000	5,000

PRICE OF GAS



\$ _____ / gallon

4 When people are shopping for a new car, their decision is often influenced by how much gas costs at the time. Watch the videos about the types of cars that were popular in years when the price of gas was relatively high versus when the price was relatively low.

a How does the price of gas impact what kind of vehicle people decide to buy, and why do you think this is?

b Even when the price of gas is low, can you think of any reasons why someone should still buy a hybrid?