

Gary Clark is driving a car that gets 24 miles per gallon but is paid for. He is trying to decide if he wants to trade it in on a new gas/electric hybrid which gets 50 miles per gallon, but will give him a car loan payment of \$483.33 a month for the next five years.



1. Complete the following chart by calculating his annual fuel costs for each car and the annual savings by driving the hybrid. Round answers to the nearest cent.

Current Vehicle (24 miles per gallon)						
Miles Driven	\$1.50	\$2.00	\$2.50	\$3.00	\$3.50	\$4.00
12,000	\$ 750.00*	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
18,000	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
24,000	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____

New Hybrid (50 miles per gallon)						
Miles Driven	\$1.50	\$2.00	\$2.50	\$3.00	\$3.50	\$4.00
12,000	\$ 360.00*	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
18,000	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
24,000	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____

Annual Savings by Driving the New Hybrid						
Miles Driven	\$1.50	\$2.00	\$2.50	\$3.00	\$3.50	\$4.00
12,000	\$ 390.00*	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
18,000	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
24,000	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____

* 12,000 / 24 = 500 500 x \$1.50 = \$750.00 (Current Car)
 12,000 / 50 = 240 240 x \$1.50 = \$ 600 (New Hybrid)
 \$750.00 - 360.00 = \$390.00

2. What is the relationship between the price of gasoline, his miles driven and the annual savings by driving the hybrid?

Name:

Period:

To buy the new hybrid, Gary will have to borrow \$25,000 for 5 years at a monthly cost of \$483.33.



3. Using the savings you calculated on page 1, complete the chart below. Calculate the savings per month on gasoline, the percentage of the monthly payment which would be paid for by the savings on gas and the adjusted monthly payment on the new hybrid. Round your answers to the nearest cent and nearest 1/10th percent.

Mileage	Gas Price (\$/gal)	Monthly Gas Savings	% of Monthly Payment	Adjusted Monthly Payment
12,000	1.50	\$32.50*	6.7%	\$450.83
	2.00			
	2.50			
	3.00			
	3.50			
	4.00			
18,000	1.50			
	2.00			
	2.50			
	3.00			
	3.50			
	4.00			
24,000	1.50			
	2.00			
	2.50			
	3.00			
	3.50			
	4.00			

* $\$390.00 / 12 = \32.50 $\$32.50 / \$483.33 = .0672 = 6.7\%$ $\$483.33 - \$32.50 = \$450.83$

4. Explain why you think Gary should or should not buy the hybrid. Consider all factors and not just gas savings.

Name:

Period: