

5. Your total benefits from consuming different quantities of gas each week are shown in the following table:

Gallons/ Week	Total Benefit (dollar equivalent)	Marginal Benefit
0	0	—
1	4	
2	8	
3	11	
4	14	
5	16	
6	18	
7	19	
8	19	

- Complete the marginal benefit column starting with the step from 0 gallons/week to 1 gallon/week.
- The price of gasoline is \$2.40/gallon. Use the Principle of Optimization at the Margin to find an optimal number of gallons of gas to consume each week.
- Some policy makers have suggested taxing gasoline to reduce global warming. (Burning fossil fuels such as gasoline releases greenhouse gases, which are a cause of global warming.) Suppose the price of gasoline, including a gasoline tax, rises to \$3.60/gallon. Use the Principle of Optimization at the Margin to find an optimal number of gallons of gasoline, given this new tax-inclusive price of gasoline.