**Fueling Up**

Motorists often complain about rising gas prices. Some motorists purchase fuel efficient vehicles and participate in trip reduction plans, such as carpooling and using alternative transportation. Other drivers try to drive only when necessary.

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1. Suppose you are at the gas station filling your tank with gas. The function *C*(*g*) represents the cost *C* of filling up the gas tank with *g* gallons. Given the equation: 
   1. What does the number 3.03 represent?
   2. Find *C*(2)
   3. Find *C*(9)
   4. For the average motorist, name one value for *g* that would be inappropriate for this function’s purpose. Explain why you chose the number you did.
   5. If you were to graph *C*(*g*), what would be an appropriate domain? Range? Explain your reasoning.
2. Examine the rise in gasoline prices from 1997 to 2006. The price of regular unleaded gasoline in January 1997 was $1.26 and in January 2006 the price of regular unleaded gasoline was $2.31 (Bureau of Labor Statistics, 2006). Use the coordinates (1997, 1.26) and (2006, 2.31) to find the slope (or rate of change) between the two points. Describe how you arrived at your answer.