- **3**. [10 points] The table below gives data about the popularity of some popular web browsers during 2011.<sup>1</sup>
  - M is the month of the year. (So, for example, M = 2 represents February 2011.)
  - F is the percent of internet users choosing Firefox.
  - $\bullet\ C$  is the percent of internet users choosing Chrome.
  - S is the percent of internet users choosing Safari.

M	2	4	6	8	10
F	42.4	42.9	42.2	40.6	38.7
C	24.1	25.6	27.9	30.3	32.3
S	4.1	4.1	3.7	3.8	4.2

**a**. [5 points] Which, if any, of the statements below are supported by the data in the table above? (*Circle* ALL such statements or circle NONE OF THESE.)

S is a function of C.

C is a function of S.

F is a decreasing function of M.

C is an increasing function of M.

F is a concave down function of M.

C is a concave up function of M.

C is a linear function of M.

C is an exponential function of M.

NONE OF THESE

The popularity of another browser, Internet Explorer, is a function of the month M. Let g(M) be the percent of all internet users who chose to use Internet Explorer in month M of 2011.

b. [2 points] Write an equation that expresses the fact that in January of 2011, 26.6% of internet users chose to use Internet Explorer as their internet browser.

**Answer:** g(1) = 26.6

c. [3 points] Let B(p) be the amount, in dollars, of monthly bonuses paid to Internet Explorer programmers when p percent of internet users chose to use Internet Explorer. Interpret, in the context of this problem, the expression B(g(2)). (Use a complete sentence and include units.)

Solution: B(g(2)) is the amount, in dollars, of the monthly bonuses paid to Internet Explorer programmers in February 2011.

<sup>&</sup>lt;sup>1</sup>Source: http://www.w3schools.com/browsers/browsers\_stats.asp