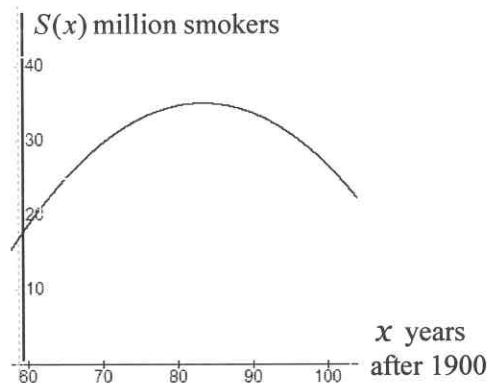


Name: _____
Group Members Present: _____

Grade: _____

_____, _____, & _____

$S(x) = -0.03x^2 + 5x - 173.2$ million people gives the number of smokers in the United States, x years after 1900, $60 \leq x \leq 100$.



- a. A number of years ago, the Surgeon General announced that there was direct evidence that smoking caused cancer. A few people paid attention to his warning and stopped smoking. Based on the graph shown, estimate when the Surgeon General issued his warning.

- b. Write the equation whose solution gives the input location of the relative maximum of S .

- c. Calculate the relative maximum.

- d. What are the absolute extreme points on the interval $[60, 100]$.

Absolute maximum point(s) on $[60, 100]$:

Absolute minimum point(s) on $[60, 100]$:

- e. Completing the following sentences using the results from part d.

Between 1960 and 2000, the number of U.S. smokers was highest in _____ when there were _____ smokers.

Between 1960 and 2000, the number of U.S. smokers was lowest in _____ when there were _____ smokers.