1. For which linear function below does $f(-1) = 9$ and $f(3) = 1$?

A. $f(x) = 3x + 6$

B. $f(x) = -2x + 7$

C. $f(x) = -x + 6$

D. $f(x) = -9x$

2. An environmental scientist is conducting research on a particular type of air pollutant. She collects air samples over time and determines the average number of micrograms of the pollutant in a cubic meter. Her data are shown in the table below.

Time (t)	Amount of Pollutant ($\mu g/m^3$)
0	50.0
1	44.0
2	38.7
3	34.1
4	30.0

Which function best models the scientist's data?

A. $f(t) = 1.12t + 50$

B. $f(t) = 50 - 6t$

**C.** $f(t) = 50 \cdot 0.88^t$

D. $f(t) = 50 \cdot 1.12^t$

Karl writes the function $f(x) = 1,000 \cdot 1.02^t$ to model the amount in his savings account over t years. Based on the function, what is the interest rate of his account?

A. $\frac{1}{12}\%$

B. 1.02%

C. 2%

D. 10%

4. The height of a foam ball, t seconds after it is released from a 64-foot-high platform, is given by the equation $h(t) = -16t^2 + 64$. For what value of t is the height equal to 0?

A. -2 seconds

B. $\frac{3}{2}$ seconds

C. 2 seconds

D. 4 seconds

5. The quadratic function $g(x)$ is graphed below.
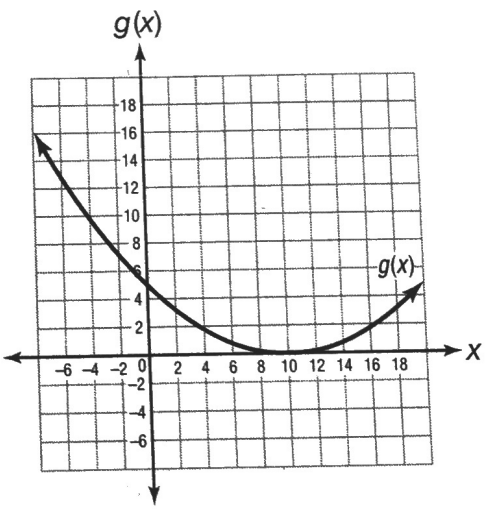
Which of these statements about $g(x)$ is true?

A. The vertex at (10, 0) is a maximum.

B. The vertex at (10, 0) is a minimum.

C. The vertex at (0, 5) is a maximum.

D. The vertex at (0, 5) is a minimum.