5. [4 points] Shown below are portions of the graphs of \( y = f(x) \), \( y = f'(x) \), and \( y = f''(x) \). Note that the dotted graph has a vertical asymptote at \( x = 0 \). Determine which graph is which, and then, on the answer lines below, indicate after each function the letter A, B, or C that corresponds to its graph. No work or justification is needed.

\[
\begin{align*}
A & \quad y = f(x) \\
B & \quad y = f'(x) \\
C & \quad y = f''(x)
\end{align*}
\]

Answer: \( f(x) : \) ________

\( f'(x) : \) ________

\( f''(x) : \) ________

6. [7 points] The function \( q(x) \) is given by the following formula, where \( c \) and \( m \) are constants:

\[
q(x) = \begin{cases} 
  c - 4x - x^2 & -3 \leq x \leq 0 \\
  mx & 0 < x \leq 2.
\end{cases}
\]

a. [4 points] Assuming \( c = -3 \) and \( m = 2 \), find the \( x \)-values of all global minima and global maxima of \( q(x) \) on the interval \([-3, 2]\). If there are none of a particular type, write NONE. Use calculus to find and justify your answers, and show your work.

Answer: Global min(s) at \( x = \) ________ and Global max(es) at \( x = \) ________

b. [3 points] Find one pair of values for \( c \) and \( m \) such that \( q(x) \) is differentiable at \( x = 0 \). Show your work.

Answer: \( c = \) __________ and \( m = \) __________