Name: **Perm Number**:

Quiz 9

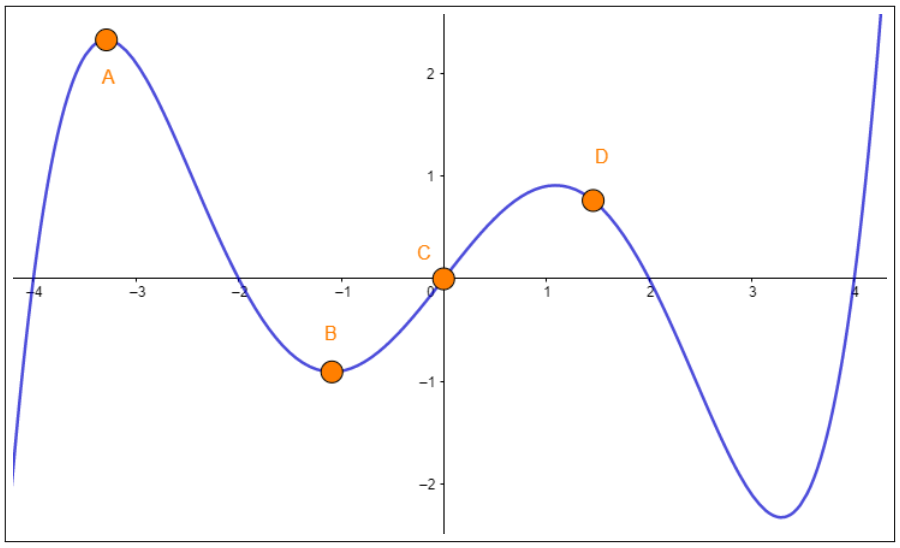
1) The function $f(t) = 10e^{3t} - t^3$ describes the position (in meters) of an object at a time t (in seconds). For the next problem, fill in the blank with the appropriate word, given that $f''(0) = 90$.

90 is the _____ of the particle at $t = 0$ seconds.

2) Using $f(t)$ from the previous problem, compute $f''(t)$.

$f''(t) =$ _____ m/s^2.

3) Below is the graph of a funtion $g(x)$ with four points on it, A, B, C, and D. Identify a point where $g''(x) < 0$, a point where $g''(x) = 0$, and a point where $g''(x) > 0$.



_____ $g''(x) < 0$ _____ $g''(x) = 0$ _____ $g''(x) > 0$