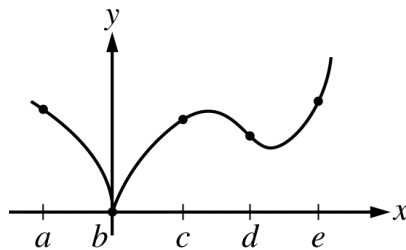**Velocity and Other Rate of Change (AP Questions)**

1. A particle moves along the x-axis with its position at time t given by $x(t) = (t - a)(t - b)$, where a and b are constants and $a \neq b$. For which of the following values of t is the particle at rest?

    (A) $t = ab$

    (B) $t = \frac{a+b}{2}$

    (C) $t = a + b$

    (D) $t = 2(a + b)$

    (E) $t = a$ and $t = b$

Graph of f

2. The graph of the function f is shown in the figure above. For which of the following values of x is $f'(x)$ positive and increasing?

    (A) a

    (B) b

    (C) c

    (D) d

    (E) e