(1) Consider the function $f(x) = \sqrt[3]{x} = x^{1/3}$.
   (a) $f(x)$ has a tangent line at $x = 0$
   AND $f(x)$ is differentiable at $x = 0$.
   (b) $f(x)$ has a tangent line at $x = 0$
   AND $f(x)$ is NOT differentiable at $x = 0$.
   (c) $f(x)$ has NO tangent line at $x = 0$
   AND $f(x)$ is differentiable at $x = 0$.
   (d) $f(x)$ has NO tangent line at $x = 0$
   AND $f(x)$ is NOT differentiable at $x = 0$.

(2) If $f'(a)$ exists, $\lim_{x \to a} f(x)$
   (a) must exist, but there is not enough information to determine it exactly.
   (b) equals $f(a)$.
   (c) equals $f'(a)$.
   (d) may not exist.

(3) A slow freight train chugs along a straight track. The distance it has traveled after x hours is given by a function $f(x)$. An engineer is walking along the top of the box cars at the rate of 3 mi/hr in the same direction as the train is moving. The speed of the man relative to the ground is
   (a) $f(x) + 3$
   (b) $f'(x) + 3$
   (c) $f(x) - 3$
   (d) $f'(x) - 3$

(4) $\dfrac{d}{dx}(e^7)$ equals
   (a) $7e^6$
   (b) e^7
   (c) 0