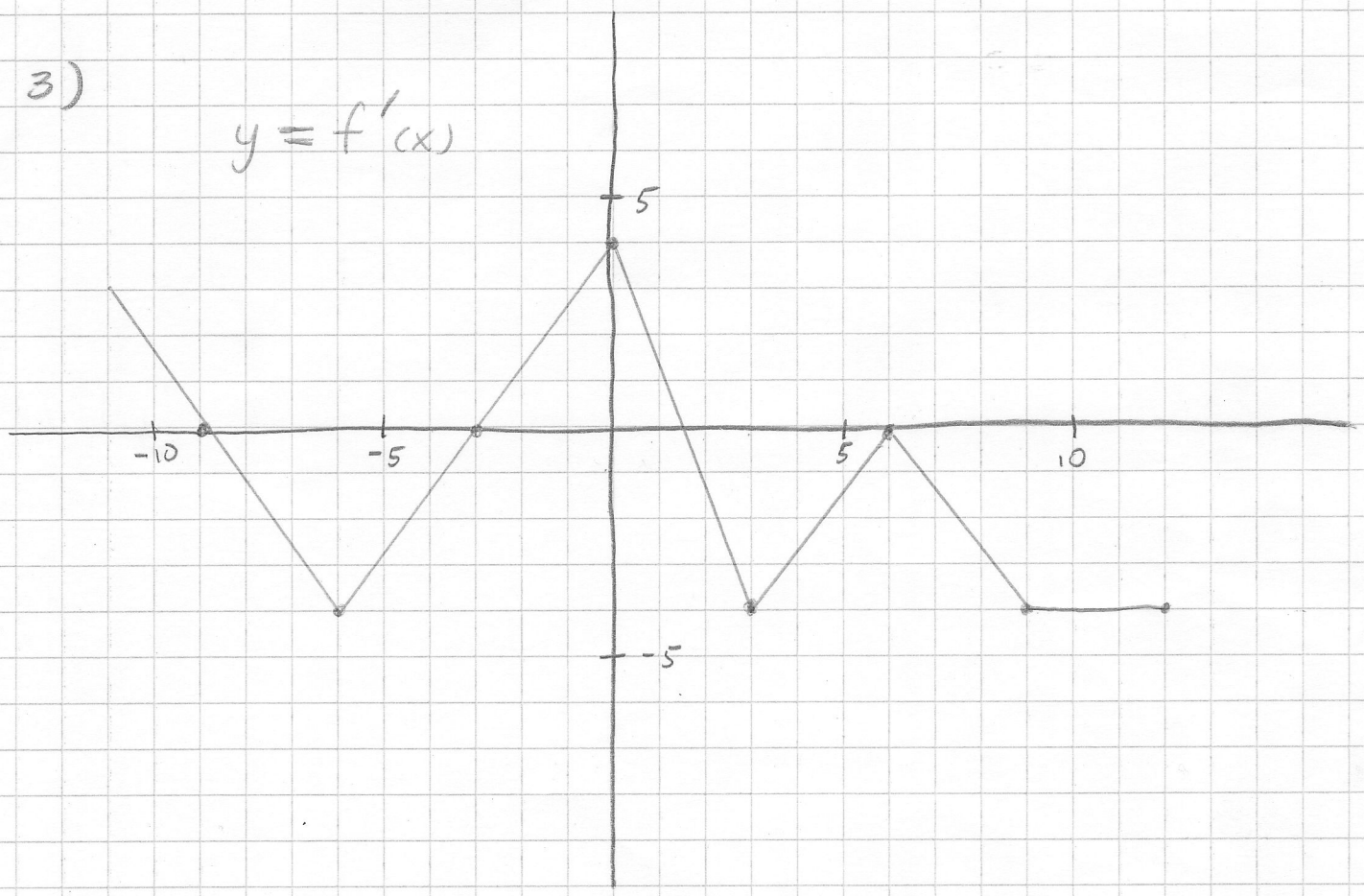
Quiz Prep Calculus

Directions: a) Find x-intercepts, critical and inflection points for $f(x)$. b) Determine the intervals where $f(x)$ is increasing, decreasing, concave up and concave down. c) Find all local extrema. d) Find and label all discontinuities for $f(x)$.

1) $f(x) = e^{x^2}$

2) $f(x) = x^4 - 8x$

3)



a) $f'(0) =$

b) $f(-2)$ $f(1)$

c) $f(4)$ $f(10)$

d) $f''(-9)$ $f''(-3)$

e) $f'(4)$ $f''(4)$

* f) List all critical points for $f(x)$.

* g) List all points where $f''(x)$ DNE.

* h) Find all local extrema.