

This is a fake quiz, this is only a fake quiz. In the event of an actual quiz, you'd have been given fair warning. Repeat: This is only a fake quiz.

1. Let $f(x) = x^3 - 9x + 6$.
 - (a) Find the largest intervals on which f is increasing.
 - (b) Find the largest intervals on which f is decreasing.
 - (c) Find the largest intervals on which f is concave up.
 - (d) Find the largest intervals on which f is concave down.
 - (e) Find the coordinates of all local maximum points of f .
 - (f) Find the coordinates of all local minimum points of f .

2. Let $f(x) = \sqrt{x^2 + 3x} - x$.

- (a) Find the largest intervals on which f is increasing.
- (b) Find the largest intervals on which f is decreasing.
- (c) Find the largest intervals on which f is concave up.
- (d) Find the largest intervals on which f is concave down.
- (e) Find the coordinates of all local maximum points of f .
- (f) Find the coordinates of all local minimum points of f .