Name: _____

Date:

Learning Goal 4.1

Using derivative tests for curve sketching.

More Questions

1. For the following functions, find the inflection points, the intervals over which the function is concave up or down, and use f''(x) to find any local extrema.

a.
$$f(x) = 3x^4 - 4x^3$$

b.
$$f(x) = x^{2/3}(6-x)^{1/3}$$

c.
$$f(x) = \frac{1}{x^2 + 1}$$

d. $f(x) = x + \frac{1}{x}$

$$d. \quad f(x) = x + \frac{1}{x}$$

e.
$$f(x) = \sin x + \cos x$$