Northern Michigan University (Marquette Co, MI)

CS111-04-26W: College Algebra (Andrew A. Poe) Name: _____
Quiz 6
Monday 23 March 2026 2:00 P.M. EDT

Time: 15 minutes

1.

$$f(x) = x^3 - 3x^2 + 2x - 1$$

Only consider that portion of the graph from x=0 to x=2.5. (The major grid points are 1 unit apart. The smaller grid points are 0.2 units apart.

Within the domain of [0,2.5], find these things:

(x,y) values of local minima: (1.577, -1.385) (0, -1)

(x,y) values of local maxima: (0.422, -0.615) (2.5, 15.625)

(x,y) values of absolute minima: (1.577, -1.385)

(x,y) values of absolute maxima: (2.5, 15.625)

The intervals on which f is increasing: [0, 0.422] [1.577, 2.5]

The intervals on which f is decreasing: [0.422, 1.577]

The intervals on which f is concave up: [1, 2.5]

The intervals on which f is concave down: [[0, 1]

(x,y) values of points of inflection: (1, -1)