

Let  $f(x) = 20 + 9x - x^3$ .

SCORE: \_\_\_\_\_ / 4 PTS

[a]  $f$  has one zero. Find the zero to 2 decimal places.

3.78

[b]  $f$  has one local minimum. Find the  $x$  - coordinate of the local minimum to 2 decimal places.

-1.73

[c] Find the interval over which  $f$  is increasing. Write your final answer in interval notation to 2 decimal places.

$[-1.73, 1.73]$