Math101 Term191
Sec17 Quiz 5

Name	ID	Sr

Instruction: CIRCLE one answer and SHOW all your work to get full mark

Q1) The **surface area of a cube** was measured to be 24 cm^2 with a possible error of 0.5 cm^2 . The maximum error in the calculated **volume** is approximately equal to

.

a) $\frac{1}{2}$

b) $\frac{3}{4}$

c) $\frac{1}{4}$

d) $\frac{1}{12}$

e) $\frac{3}{2}$

Q2) If $f(x) = \ln(\text{sech}\,(\ln x)\,)$ then $f'(2) =$

a) $-\frac{3}{5}$

b) $-\frac{3}{10}$

c) $\frac{3}{10}$

d) $\frac{3}{5}$

e) $\frac{4}{5}$

Q3) The **Number** of the critical numbers of the function $f(x) = \frac{x^2-6x+9}{\sqrt{x-1}}$ is

a) 4

b) 2

c) 0

d) 1

e) 3

Q4) The absolute **minimum** value of $f(x) = -\cos(2x) - 4sinx - 8cosx - 8x$ on the interval $[0, \pi]$ is

a) 0

b) π

c) $7 - 8\pi$

d) $-3 - 4\pi$

e) -9