

Quiz #11

Name: Key

*You must show your work to get full credit.*

1. If  $h(4.1) = 6.3$  and  $h'(4.1) = -1.2$  estimate  $h(4.22)$ .

$$\begin{aligned}
 h(4.22) &\approx h(4.1) + h'(4.1) \Delta x & h(4.22) &\approx \underline{6.156} \\
 &= 6.3 + (-1.2)(4.22 - 4.1) \\
 &= 6.156
 \end{aligned}$$

2. Draw the graph of a function that satisfies the following

- $f'(x) > 0$  for  $x < 1$  and  $3 < x < 5$ .
- $f'(x) < 0$  for  $1 < x < 3$  and  $5 < x$

