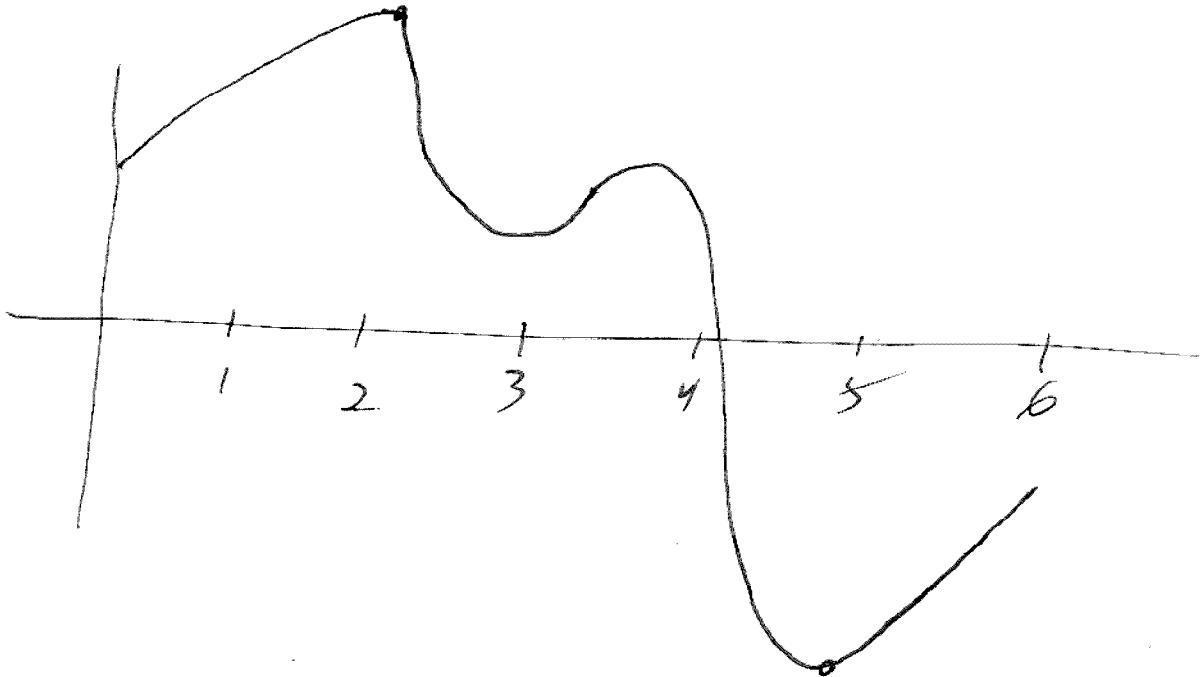


Name: SOLUTIONS

Quiz #8 - October 27, 2006

1. Sketch a graph of a function f which is continuous on $[0, 6]$, has a global maximum at 2, a global minimum at 5 and a local minimum at 3.



2. Let $f(x) = x - \sqrt{x}$. Find the global maximum and minimum values for $f(x)$ on $[0, 4]$.

$$f'(x) = 1 - \frac{1}{2\sqrt{x}}$$

$$1 - \frac{1}{2\sqrt{x}} = 0$$

$$1 = \frac{1}{2\sqrt{x}}$$

$$2\sqrt{x} = 1$$

$$x = \frac{1}{4}$$

x	f(x)
0	0
$\frac{1}{4}$	$-\frac{1}{4}$ ← global min
4	2 ← global max