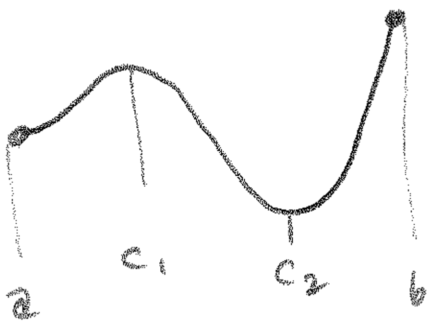
201 §4.1 I #s 1, 4, 7, 10–14, 17, 18

§4.1 ~~II #s 37, 38, 43, 46, 51, 53, 57, 67 a-c, 68~~, 71, 72

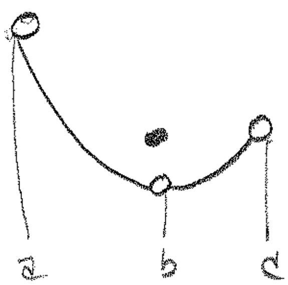
#s 1–6 Determine from graph whether the function has any absolute xtremes on [a,b]. Then explain how its consistent w/ Theorem 1.

(1)



Yes. It's cnt^s on [a,b]. ∴ has abs max & min.

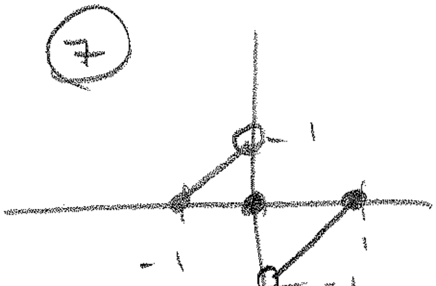
(4)



No. It has no absolute extremes. It's not cnt^s! otherwise, it'd have to.

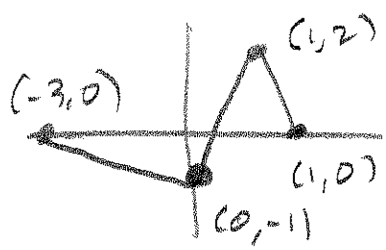
#s 7–10 Find abs extremes & where they occur.

(7)



It has no abs. extremes!

(10)



Abs Max of $y=2$ @ $x=1$

Abs Min of $y=-1$ @ $x=0$

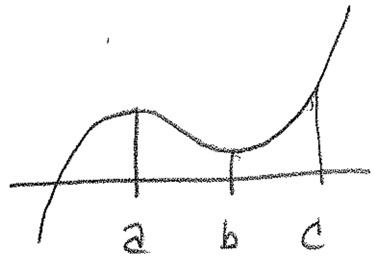
201 §4.1 #s 11–14, 17, 18

#s 11–14 Match Table w/ graph

(11)

x	$f'(x)$
a	0
b	0
c	5

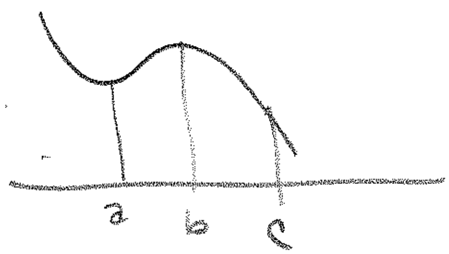
(c)



(12)

x	$f'(x)$
a	0
b	0
c	−5

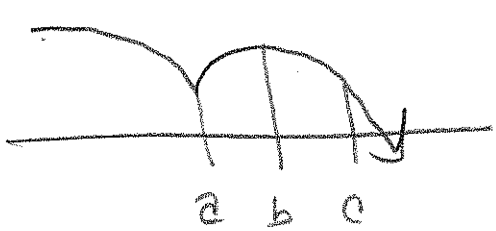
(b)



(13)

x	$f'(x)$
a	$\nexists$
b	0
c	−2

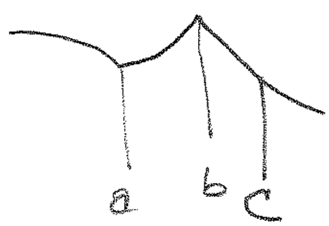
(d)



(14)

x	$f'(x)$
a	$\nexists$
b	$\nexists$
c	−1.7

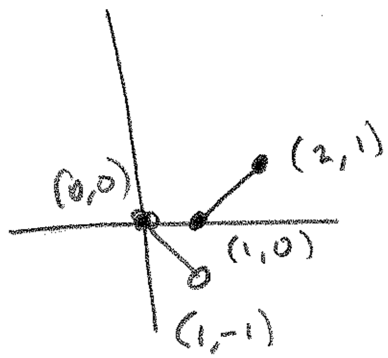
(a)



201 §4.1 #s 17, 18

#s 15-20 Sketch the graph & see if it has any abs. extremes on its $\mathcal{D}$. Explain how T1 is OK with your work

(17) $g(x) = \begin{cases} -x & 0 \le x < 1 \\ x-1 & 1 \le x \le 2 \end{cases}$



Abs max @ $x=2$ of $y=1$

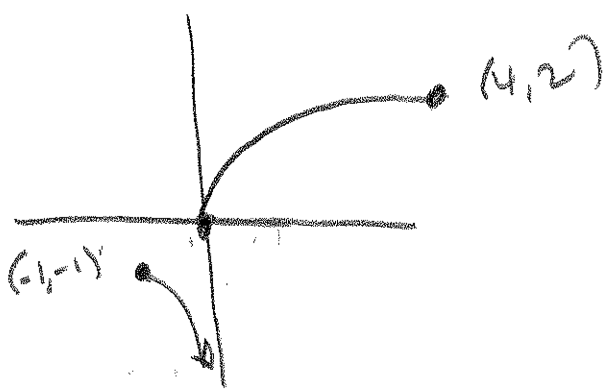
No abs. min.

It's not cnt^s, so T1 Doesn't Apply.

Not cnt^s @ $x=1$.

(18) $h(x) = \begin{cases} \frac{1}{x}, & -1 \le x < 0 \\ \sqrt{x}, & 0 \le x \le 4 \end{cases}$

Abs max of 2 @ $x=4$



No abs min.

T1 D.N.A.

(Not cnt^s @ $x=0$