

2.6. HW Q4



1)  $f(a)$  def

2)  $\lim_{x \rightarrow a} f(x)$  exists (LL=RL)

3)  $\lim_{x \rightarrow a} f(x) = f(a)$

1)  $f(1)$  udef.

2)  $\lim_{x \rightarrow 1} f(x) = +\infty$

3) violates ths

} Because the graph violates condition #2

@  $x=2$

1)  $f(2)=2$

2)  $\lim_{x \rightarrow 2^-} f(x) = 1$ ,  $\lim_{x \rightarrow 2^+} f(x) = 2$ ,  $\lim_{x \rightarrow 2} f(x)$  DNE ( $1 \neq 2$ )

@  $x=3$

1)  $f(3)$  udef.

2)  $\lim_{x \rightarrow 3} f(x) = 3$

3) violates ths

@  $x=4$

$f$  is conti at  $x=4$