8. $f(x) = \begin{cases} 9x-1, & x \le 3 \\ x^2-2, & x > 3 \end{cases}$

(1) NO DISC

(2)

$x=3$	$x=3$
$9x-1$	x^2-2
$9(3)-1$	$(3)^2-2$
$27-1$	$9-2$
26	7

NOT EQUAL

SO DISC: $x=3$

$(-\infty, 3) \cup (3, \infty)$ CONT.

9. $f(x) = x\sqrt{x-2}$

FOR A RADICAL, TO FIND OUT WHERE IT IS CONTINUOUS, SET WHAT IS UNDER RADICAL ≥ 0 AND SOLVE

$x-2 \ge 0$

$x \ge 2$ CONT.

$[2, \infty)$

ex: $f(x) = \dfrac{x-1}{x^2-1}$

$= \dfrac{\cancel{x-1}}{(x+1)(\cancel{x-1})}$ REMOVE

$= \dfrac{1}{x+1}$

$x+1=0$

$x=-1$

$x^2-1=0$

DOTS $(x+1)(x-1)=0$

$x+1=0 \quad x-1=0$

$x=-1 \quad x=1$ DISCONTINUITIES

NON-REMOVABLE REMOVABLE