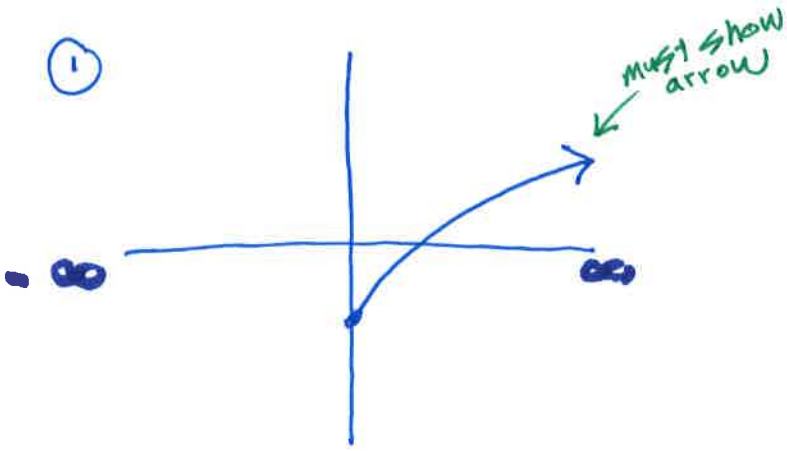
Analyze $f(x) = \sqrt{x} - 2$

(1)



Non-linear curve with one end point

(2) There is an endpoint with coordinates $(0,-2)$

(3) domain $0 \leq x < \infty$

(4) range $-2 \leq y < \infty$

(5) (R) As $x \to +\infty$, $y \to +\infty$

there is no left end behavior since there are no y-values as $x \to -\infty$.

(6) y-intercept $(0,-2)$

x-intercept (when $y=0$)

$0 = \sqrt{x} - 2$

$+2 \quad +2$

$2 = \sqrt{x}$ ← square both sides

$(2)^2 = (\sqrt{x})^2$

$x = 4$

so the x-intercept is $(4,0)$

(7) No Asymptotes

(8) No symmetry