(2) \( \text{Looking at the graph of } f(x) = \ln(x) \)
\( \text{Find the vertical asymptote.} \)
\( \lim_{x \to 0^+} f(x) = -\infty \)
\( V.A. = 0 \)

(3) \( \text{Find the } V, A \) of \( f(x) = \frac{x^2 - 3x + 2}{x - 1} \)

**Note:** Rational function and

\( \text{V.A. if denominator is zero, not both.} \)

**Try:** \( x = 1 \) because the denominator is zero.

\( \lim_{x \to 1^+} \frac{x^2 - 3x + 2}{x - 1} = \infty \)

\( \text{The squeeze theorem} \)

If \( f(x) \leq g(x) \leq h(x) \) when \( x \) is near \( c \)

\( \lim_{x \to c} f(x) = L = \lim_{x \to c} h(x) \)

and also

\( \lim_{x \to c} g(x) = \text{minimum} \)

then \( f(x) \neq h(x) \)

or an interval needs to be