

Name \_\_\_\_\_

Sr.# \_\_\_\_\_

- 1) Find the vertical asymptotes of the function

$$f(x) = \frac{x^2 - 1}{x^2 - 2x + 1}$$

- 2) Find the following limits if it exists.

a)  $\lim_{x \rightarrow 1} \frac{2-x}{x^2-2x+1}$

b)  $\lim_{h \rightarrow 0} \frac{(3+h)^{-1} - 3^{-1}}{h}$

c)  $\lim_{x \rightarrow 0} \left( \frac{1}{x} - \frac{1}{|x|} \right)$

d)

$$\lim_{x \rightarrow 0^+} \sqrt{x} e^{\sin(\pi/x)}$$