

9. $\lim_{x \rightarrow 2} \frac{x^2 - 4}{x^2 - 4x + 4} = \lim_{x \rightarrow 2} \frac{(x - 2)(x + 2)}{(x - 2)^2} = \lim_{x \rightarrow 2} \frac{x + 2}{x - 2}$ does not exist. The denominator approaches 0 (from both sides) while the numerator does not.