

1. State the definition of $\lim_{x \rightarrow a} f(x) = L$ using either complete sentences or the formal ϵ - δ version. (2pts)

Evaluate the following limits if they exist. Choose one to justify each step involved. (8pts)

2. $\lim_{x \rightarrow 3} \frac{x^2 - 3x}{x^2 + x - 12}$

3. $\lim_{h \rightarrow 0} \frac{2(4+h)^2 - 32}{h}$

4. $\lim_{t \rightarrow 5} \left(\frac{t^2 - 5t - 7}{t - 5} + \frac{2t - 3}{t - 5} \right)$