

Calculating Limits

1. What is

$$\lim_{x \rightarrow 1} f(x)$$

where $f(x)$ is

2. Find the following limits:

(a) $\lim_{x \rightarrow 2} (x^3 - 3)$

(b) $\lim_{x \rightarrow -4} \frac{x^2 - 16}{x^2 + 5x + 4}$

(c) $\lim_{x \rightarrow 1} \frac{x^3 - 1}{x - 1}$

(e) $\lim_{x \rightarrow 0} \frac{\frac{1}{x-2} + \frac{1}{2}}{x}$