1. (2 points each) Evaluate the following limits

   (a) \( \lim_{x \to -5} \frac{1}{5} + \frac{1}{x} \)

   (b) \( \lim_{t \to 3} \frac{2 - t}{t - 3} \)

   (c) \( \lim_{x \to 1} \frac{x^2 - 1}{x - 1} \)

2. (2 points) Show precisely how the Intermediate Value Theorem is used to prove that the equation \( x^3 - 2x - 3 = 0 \) has at least one real solution.
3. (2 points) Determine the values of $a$ and $b$ so that $f(x)$ is continuous throughout its domain.

$$f(x) = \begin{cases} 
2x^2 - 8 & \text{for } x < -1 \\
ax + b & \text{for } -1 \leq x \leq 3 \\
16 - 2x & \text{for } x > 3
\end{cases}$$