

Q1. Use **limits** to determine whether $x = 1$ is a vertical asymptote of $f(x) = \frac{x^2 - 4x + 3}{x^2 + x - 2}$ or not.



Q2. Evaluate $\lim_{x \rightarrow -1} \left\lfloor \frac{1}{2 - x^2} \right\rfloor$ if it exists and **explain if it is not**. (where $\lfloor x \rfloor$ is the greatest integer $\leq x$)



Q1. Use **limits** to determine whether $x = 0$ is a vertical asymptote of $f(x) = \frac{x^2 + x}{x^3 - 2x^2}$ or not.



Q2. Evaluate $\lim_{x \rightarrow 0} \frac{x}{2 - \sqrt{4 + x}}$ if it exists and **explain if it is not**.

