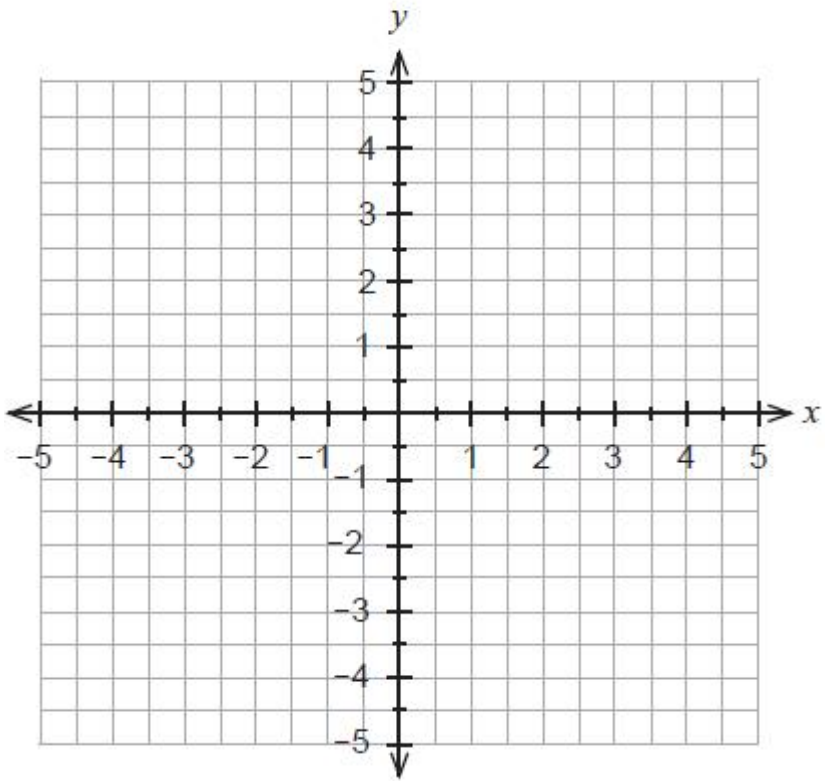
Question 4 **(5 marks)**

Consider the function $f(x) = \dfrac{x^2-4}{x+1} = x-1-\dfrac{3}{x+1}$.

Sketch the graph of the function $y = f(x)$ on the axes below. Indicate clearly the x and y intercepts and any asymptotes.



The slope of the curve at the origin O and points A and B is equal to zero.

(b) Show that the equation that determines the x coordinates for points A and B is given by $x^4 - 2x - 1 = 0$ and hence determine the coordinates for point A correct to 0.001.

(3 marks)