1) Find each of the following limits.

\[ \lim_{x \to 3^+} \frac{x^2 - 5x + 6}{x^2 - 6x + 9} \]

\[ \lim_{x \to \infty} \frac{x^3 + 3x + 2}{2x^3 + x^4} \]

2) For the function graphed below, identify each \( x \)-value at which the function is NOT continuous.

3) Find the value of \( a \) so that the limit below equals 4.

\[ \lim_{x \to -\infty} \frac{ax^2 + 3}{2x^2 + 4} \]