1. *Calcula los siguientes límites* :

(a) $\lim_{x\to\infty}\left(\frac{2x^2-14x+12}{x^2-10x+4}\right)$

Sol: 2

(b) $\lim_{x\to\infty}\left(\frac{(5x-4)\,(2x^2-3)}{2x^3-4x+1}\right)$

Sol: 5

(c) $\lim_{x\to-1}\left(\frac{x^3+1}{x^2+2x+1}\right)$

Sol: No existe el límite

(d) $\lim_{x\to-1}\left(\frac{x^2-1}{x^2+3x+2}\right)$

Sol: -2

(e) $\lim_{x\to a}\left(\frac{-a^2-2ax+3x^2}{a^2-3ax+2x^2}\right)$

Sol: 4

(f) $\lim_{x\to1}\left(-\frac{3}{1-x^2}+\frac{1}{1-x}\right)$

Sol: No existe el límite

(g) $\lim_{x\to0}\left(\frac{2x^3+6x^2-3x}{2x^2+5x}\right)$

Sol: $-\frac{3}{5}$

(h) $\lim_{x\to\infty}\left(\frac{2x^3+6x^2-3x}{2x^2+5x}\right)$

Sol: ∞

(i) $\lim_{x\to-\infty}\left(\frac{2x^3+6x^2-3x}{2x^2+5x}\right)$

Sol: $-\infty$

(j) $\lim_{x\to-\infty}\left(\frac{4x^2-x+3}{3x^2+x-3}\right)^{\frac{x}{1-x}}$

Sol: $\frac{3}{4}$

(k) $\lim_{x\to\infty}\left(-x+\sqrt{x^3+x+1}\right)$

Sol: ∞

(l) $\lim_{x\to\infty}\left(-x+\sqrt{x^2+x+1}\right)$

Sol: $\frac{1}{2}$

(m) $\lim_{x\to\infty}\left(\frac{x^2+3}{3x^2-5}\right)^{\frac{x^2}{2-x}}$

Sol: ∞

(n)

$$\lim_{x\to 1}\left(\frac{x^3+1}{x^2+1}\right)^{\frac{3}{x-1}}$$

Sol: $e^{\frac{3}{2}}$

(ñ)

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

Sol: e