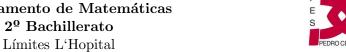


## Departamento de Matemáticas 2º Bachillerato



**Sol:** 0

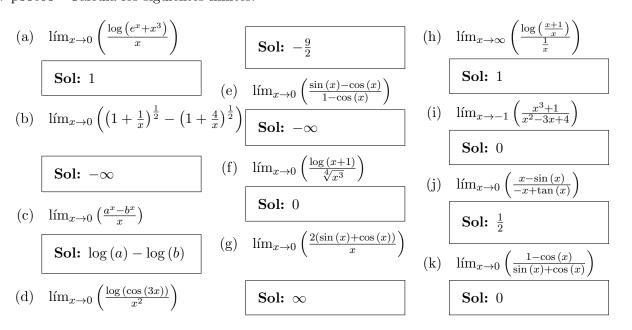
1. p33e52 - Calcula los siguientes límites:

(a)	$\lim_{x\to 3} \left(\frac{x^4-20x-21}{x^2+11x-42}\right)$		Sol: $\infty$ (k)	$\lim_{x \to \infty} \left(1 - e^{-x}\right)^{x^2}$
	Sol: 88/17	(m)	$\lim_{x \to 0} \left( \frac{-\frac{x^3}{3} - x + \operatorname{atan}(x)}{x^3} \right)$	Sol: 1
(b)	$\lim_{x \to \infty} \left( \frac{x^3 - 7x + 3}{-5x^3 - x + 3} \right)$	(g)	$\lim_{x\to 0} \left( \frac{x^3}{x^3} \right) $ (1)	$\lim_{x \to 0} \cos^{\frac{3}{x^2}} (2x)$
	<b>Sol:</b> $-\frac{1}{5}$		<b>Sol:</b> $-\frac{2}{3}$	<b>Sol:</b> $e^{-6}$
(c)	$\lim_{x \to 0} \left( \frac{\sin(x)}{x} \right)$	(h)	$\lim_{x \to 0} \left( \frac{(x - \sin(x))\sin(x)}{x} \right)  (m)$	$\lim_{x\to 1} \tan^{\tan\left(\frac{\pi x}{2}\right)} \left(\frac{\pi x}{4}\right)$
	Sol: 1		<b>Sol:</b> 0	<b>Sol:</b> $e^{-1}$
(d)	$\lim_{x \to 0} \left( \frac{e^x - 1}{x} \right)$	(i)		$\lim_{x \to 1} x^{\frac{1}{1-x}}$
	Sol: 1 $(1-\cos(x))$		Sol: 0	Sol: $e^{-1}$
(e)	$\lim_{x \to 0} \left( \frac{1 - \cos(x)}{x^2} \right)$	(i)	$\lim_{x \to 0} \left( \frac{\frac{1}{\log(10)} \log \left( \frac{\sin(x)}{x} \right)}{x} \right) (\tilde{\mathbf{n}})$	$\lim_{x \to 0} \left( \frac{\frac{1}{\log(10)} \log \left( \frac{\tan(x)}{x} \right)}{\frac{1}{x}} \right)$
	Sol: $\frac{1}{2}$	(J)	$x \rightarrow 0$	x

**Sol:** 0

2. p33e53 - Calcula los siguientes límites:

(f)  $\lim_{x\to 0} \left( \frac{\frac{x^2}{6} - x + \sin(x)}{x^3} \right)$ 



3. p33e54 - Calcula los siguientes límites:

 $\lim_{x \to \frac{\pi}{2}} (\log (\tan (x)) \cos (x))$ 

Sol:  $\infty$ 

 $\lim_{x\to 0} \cot^{\sin(x)}(x)$ 

**Sol:** 0

 $\lim_{x\to\infty} \left(x\log\left(\frac{x+1}{x}\right)\right)$ (g)

**Sol:** 1

 $\lim_{x \to 0} \left( \sin \left( x \right) + \cos \left( x \right) \right)^{\frac{1}{x}}$ 

**Sol:** 1

(m)  $\lim_{x\to 0} \left(5\sqrt{1-\cos(x)}\cot\left(\frac{x}{2}\right)\right)$ 

(h)  $\lim_{x\to 0} (1 - \sin(2x))^{\cot(3x)}$ 

**Sol:**  $5\sqrt{2}$ 

Sol: e

 $\lim_{x \to \frac{\pi}{2}} \tan^{\cos(x)}(x)$ 

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

**Sol:** 1

(n)  $\lim_{x\to 0} \left( \frac{(x+1)(\cot^2(x)+1)}{x^2+x+1} \right)$ 

**Sol:** 1

Sol: e

 $\lim_{x\to 0} \left(\frac{1}{x}\right)^{\tan(x)}$ (i)

Sol:  $\infty$ 

 $\lim_{x \to 0} \left( e^x + x^3 \right)^{\frac{1}{x}}$ 

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

(e)  $\lim_{x\to 0} \left( \left( e^{\sin(x)} - 1 \right) \tan\left( x + \frac{\pi}{2} \right) \right)$  Sol:  $\frac{1}{2}$ 

Sol:  $-\infty$ 

**Sol:** -1

(k)  $\lim_{x \to \frac{\pi}{2}} \tan^{\frac{1}{\cos(2x)}} (x)$ 

(o)  $\lim_{x\to 0} ((1-\cos(x))\cot(x))$ 

(f)  $\lim_{x\to\infty} (x+1)^x$ 

**Sol:** 0

**Sol:** 0