

## Ejercicios de cálculo de límites de sucesiones II

**4**  $\lim(\sqrt{n^2 - 2} - \sqrt{n^2 + n})$

**5**  $\lim(\sqrt{n^2 + 3n} - \sqrt{n^2 + n})$

**10** Hallar los límites:

**1**  $\lim(n+7) \cdot \sqrt{\frac{1}{4n^2+3}}$

**2** 
$$\lim \frac{\frac{3}{\sqrt{4n^2+5}}}{\frac{1}{n-1}}$$

**3**  $\lim\left(\sqrt{18n^2+1} \cdot \frac{1}{\sqrt{32n^2-3}}\right)$

**4** 
$$\lim \frac{\frac{3}{n^2+2}}{\sqrt{\frac{7}{n^2-1}}}$$

**11** Calcula los siguientes límites:

**1**  $\lim\left(\frac{2n^2}{3n+1}\right)^{\frac{3n^2+2}{5n-3}}$

**2**  $\lim\left(\frac{2n^2}{3n+1}\right)^{\frac{-3n^2+2}{5n-3}}$

**3**  $\lim\left(\frac{2n^2}{3n+1}\right)^{\frac{-3n^2+2}{5n^2-3}}$

**4**  $\lim\left(\frac{2n^2}{3n^3+1}\right)^{\frac{3n^2+2}{5n-3}}$

$$\boxed{5} \quad \lim \left( \frac{2n^2}{3n^3 + 1} \right)^{\frac{-3n^2 + 2}{5n - 3}}$$

$$\boxed{6} \quad \lim_{x \rightarrow \infty} \left( \frac{2n^2}{3n^2 + 1} \right)^{\frac{-3n + 2}{5n^2 - 3}}$$

$$\boxed{7} \quad \lim \left( \frac{2n^2}{3n^2 + 1} \right)^{\frac{-3n^2 + 2}{5n - 3}}$$

$$\boxed{8} \quad \lim \left( \frac{2n^2}{3n^2 + 1} \right)^{\frac{3n^2 + 2}{5n - 3}}$$

**12** Calcula los siguientes límites:

$$\boxed{1} \quad \lim \left( 1 + \frac{1}{n+2} \right)^{n-1}$$

$$\boxed{2} \quad \lim \left( 1 - \frac{2}{3n} \right)^n$$

$$\boxed{3} \quad \lim \left( \frac{2n+1}{2n+4} \right)^{\frac{n^2}{n+1}}$$

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