Esercitazione tutoraggio diffuso Analisi 1 (Settimana 28 ottobre - 1 novembre)

- $\lim_{n \to +\infty} \frac{3n^4 - 5n^{3/2} + 2n^{-1} - 6n^{9/2}}{2n^{3/2} - n^{1/5} + 4n^{8/3}}$ **R.** $-\infty$

- $\lim_{n \to +\infty} \frac{3n^{-2} + \frac{1}{\sqrt{n}} - \frac{4}{n^{3/2}}}{n^{-\frac{5}{7}} - \frac{2}{n} + \frac{3}{n^{1/2}}}$ **R.** $\frac{1}{3}$

- $\lim_{n \to +\infty} \frac{2^n + \left(\frac{1}{2}\right)^{4n} - \left(\frac{1}{3}\right)^{-2n} + 16^{n/4}}{7^n - 8^{n/3} - 4 \cdot 3^{-n}}$ **R.** $-\infty$

- $\lim_{n \to +\infty} \frac{6^{-n} - \left(\frac{1}{5}\right)^n + \left(\frac{1}{2}\right)^{4n}}{7^{-n} + 3^{-2n}}$ **R.** $-\infty$

- $\lim_{n \to +\infty} \frac{\log_2 n - \log_3(n^2) + \log_{1/2}(n^5)}{\log_{10}(n^7) - 3\log_2 n}$ **R.** $\frac{-4 - \frac{2}{\log_2 3}}{\frac{7}{\log_2 10} - 3}$

- $\lim_{n \to +\infty} \frac{\log_4(2n) + (\log_2 n)^2}{\log_8(n^3) - (\log_{16}(n^3))^2}$ **R.** $-\frac{16}{9}$

- $\lim_{n \to +\infty} \frac{6n^{-2} + \left(\frac{3}{2}\right)^{2n} - [\log_{100}(n^{10})]^{10} + \left(\frac{2}{5}\right)^{6n}}{\left(\frac{15}{4}\right)^n - \left(\frac{5}{7}\right)^{2n} + 7n^3 - (\log_{10} n)^4}$ **R.** 0

- $\lim_{n \to +\infty} \frac{\left(\frac{2}{3}\right)^n - \left(\frac{5}{8}\right)^{n/2} + \frac{1}{n^{3/2}} - (\log n)^{-2}}{n^{-1/3} - \left(\frac{6}{7}\right)^{3n}}$ **R.** $-\infty$

- $\lim_{n \to +\infty} \frac{\left(\frac{1}{4}\right)^{n/2} - \left(\frac{4}{81}\right)^{n/4} + 7n^{3/2}\left(\frac{3}{5}\right)^n}{\left(\frac{e}{2}\right)^{-n} + \frac{2}{\pi^n}}$ **R.** 0

- $\lim_{n \to +\infty} \frac{[\log_{10}(n^{70})]^{10} - 421\sqrt{n} + \left(\frac{5}{3}\right)^{n/3+1}}{\left(\frac{3}{5}\right)^{4n} + 64n^3 + \frac{1}{9} \cdot \left(\frac{25}{9}\right)^{n/6-1/2}}$ **R.** 25

- $\lim_{n \to +\infty} \frac{\sin\left[\left(\frac{3}{4}\right)^n\right] + \log\left(\frac{n+1}{n}\right)}{e^{\tan(1/n)} - 1}$ **R.** 1

- $\lim_{n \to +\infty} \left(-e^{2\sin(1/n)} + 2\right)^{\tan(1/n)}$ **R.** 1

- $\lim_{n \to +\infty} \frac{\cos\left[\left(\frac{1}{2}\right)^n\right] - e^{\left(\frac{2}{9}\right)^n}}{2^n \cdot \log\left(1 + \frac{3}{8^n}\right)}$ **R.** $-\frac{1}{6}$

- $\lim_{n \to +\infty} \frac{3n^{1/4}\sin n - 4n^{3/2}\tan\frac{2}{\sqrt{n}} + 6n}{\log(1 + e^n) - \log(1 + e^{-n})}$ **R.** -2

- $\lim_{n \to +\infty} \frac{n! \log(2 - \sqrt[n]{n+1})}{\binom{n-1}{2}}$ **R.** $-\infty$