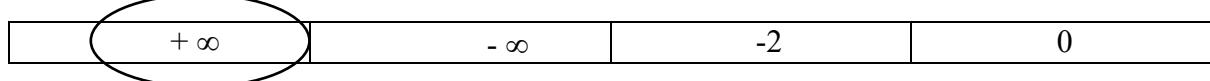


Contrôle N°2 Terminale spécialité mathématiques Le 26/10/21 SB

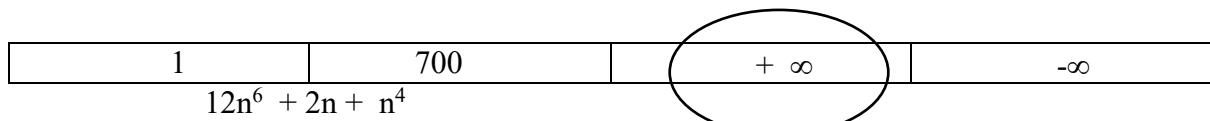
Exercice 1 (6 points)

Dans les questions suivantes entourer la solution exacte parmi celles proposées.

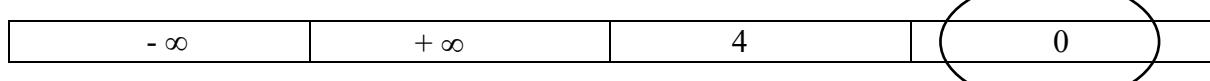
1 - $\lim_{n \rightarrow +\infty} n - 2n^3 + 10n^5$



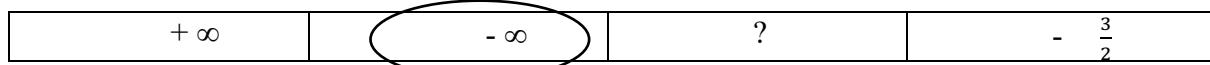
2 - $\lim_{n \rightarrow +\infty} \frac{4n^5 + 5n^6 + 700n}{12n^6 + 2n + n^4}$



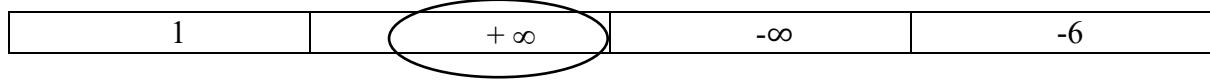
3 - $\lim_{n \rightarrow +\infty} \frac{3n^6 + 20n^7 + 1000}{3n^6 + 20n^7 + 1000}$



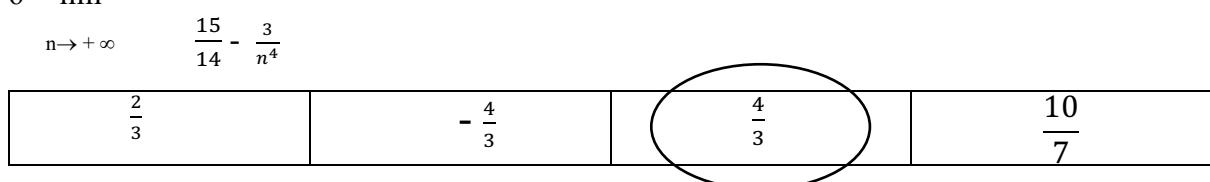
4 - $\lim_{n \rightarrow +\infty} \left(\frac{-3}{2n} + \frac{14}{n^4} - n^2 \right) \times (4 + 2n + n^3)$



5 - $\lim_{n \rightarrow +\infty} 1 + \frac{1}{n} - \frac{6}{n^2} + 4\sqrt{n}$



6 - $\lim_{n \rightarrow +\infty} \frac{\frac{2}{n} + \frac{10}{7}}{\frac{15}{14} - \frac{3}{n^4}}$



Exercice 2 (4 points)

Calculer les limites suivantes (attention **correction non détaillée** , voir sujet A car la rédaction est la même)

1°) $\lim_{n \rightarrow +\infty} 3^n - 7^n = -\infty$

2°) $\lim_{n \rightarrow +\infty} n + 2 + \sin(n) = +\infty$

3°) $\lim_{n \rightarrow +\infty} -3 + \frac{\cos(n)}{n^2} = -3$