

## Exercice 1

## Limites des fonctions polynômes

Retrouver les limites suivantes

$$\begin{array}{l} 1. \lim_{x \rightarrow +\infty} x^2 = \\ 2. \lim_{x \rightarrow +\infty} 3x^2 = \\ 3. \lim_{x \rightarrow +\infty} -5x^2 = \end{array}$$

$$\begin{array}{l} 4. \lim_{x \rightarrow -\infty} x^2 = \\ 5. \lim_{x \rightarrow -\infty} x^2 + 1 = \\ 6. \lim_{x \rightarrow -\infty} 0.1x^2 - 100 = \end{array}$$

$$\begin{array}{l} 7. \lim_{x \rightarrow +\infty} x = \\ 8. \lim_{x \rightarrow +\infty} x^2 + x = \\ 9. \lim_{x \rightarrow +\infty} x^2 - x + 1 = \end{array}$$

## Exercice 2

## Limites des fonctions de référence

Retrouver les limites suivantes

$$\begin{array}{l} 1. \lim_{x \rightarrow +\infty} e^x = \\ 2. \lim_{x \rightarrow +\infty} -2e^x = \\ 3. \lim_{x \rightarrow -\infty} e^x + 1 = \\ 4. \lim_{x \rightarrow -\infty} 1 - 0.1e^x = \\ 5. \lim_{x \rightarrow 0+} \ln(x) = \end{array}$$

$$\begin{array}{l} 6. \lim_{x \rightarrow 0+} \ln(x) + 10 = \\ 7. \lim_{x \rightarrow +\infty} \ln(x) + 3 = \\ 8. \lim_{x \rightarrow +\infty} -2 \ln(x) = \\ 9. \lim_{x \rightarrow -\infty} 2 \times \frac{1}{x} = \end{array}$$

$$\begin{array}{l} 10. \lim_{x \rightarrow 0-} \frac{10}{x} = \\ 11. \lim_{x \rightarrow 0+} \frac{-2}{x} = \\ 12. \lim_{x \rightarrow +\infty} \frac{5}{x} + 1 = \end{array}$$