# Université Nangui Abrogona

### Année Universitaire 2019-2020

#### UFR-SFA Licence 1-MI×PC

## TD-Fiche Nº1-ALGEBRE 1

#### Exercice 1

1) <u>Déterminons le complémentaire dans R des</u> parties suivantes:

$$A = ]-\infty;0] \Rightarrow \overline{A} = [A = ]0;+\infty[$$

$$B = ]-\infty \circ [ \Rightarrow \overline{B} = C_R B = [\circ i + \infty [$$

$$C = ]oi + \infty[$$
  $\Rightarrow \bar{C} = C_{R}C = ]-\alpha_{i}o]$ 

$$D = [0] + \infty [ \longrightarrow \overline{D} = C_R D = ] - \infty [0]$$

$$E = J1;2[ \rightarrow D E = J-\infty;1]U[2;+\infty[$$



$$F = \begin{bmatrix} 1/2 \end{bmatrix} \implies F = C F = J - \infty i 1 \begin{bmatrix} U \begin{bmatrix} 2i + \infty \end{bmatrix} \end{bmatrix}$$
2) Socient  $G = J - \infty i 1 \begin{bmatrix} U \end{bmatrix} 2i + \infty \begin{bmatrix} 1 \end{bmatrix}$ ,  $H = J - \infty i 1 \begin{bmatrix} 0 \end{bmatrix} \end{bmatrix}$ 

$$e^{\frac{1}{2}} I = \begin{bmatrix} 2i + \infty \end{bmatrix}$$

$$Comparons les ensembles pruvants:  $C_{R}GetC_{R}HnC_{R}I$ 

$$C_{R}G = \begin{bmatrix} 1/2 \end{bmatrix}$$

$$C_{R}HnC_{R}I = (\begin{bmatrix} 1/2 \end{bmatrix} \cap (J - \infty i) 2 [) = \begin{bmatrix} 1/2 \end{bmatrix}$$

$$Comme \begin{bmatrix} 1/2 \end{bmatrix} \subsetneq \begin{bmatrix} 1/2 \end{bmatrix} ;$$
alors  $C_{R}HnC_{R}I \subsetneq C_{R}G$ .$$