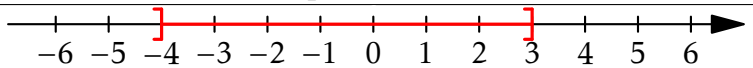
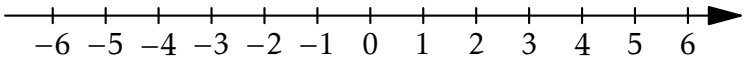
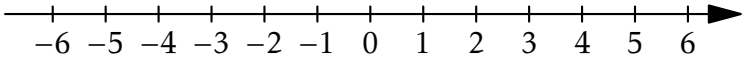
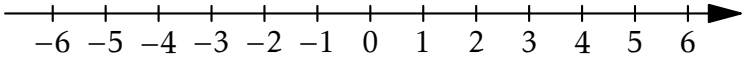
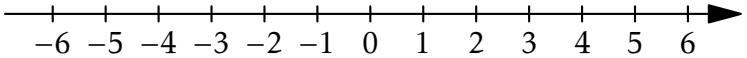
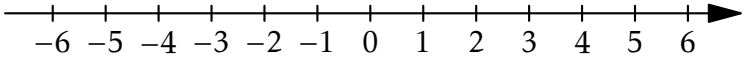
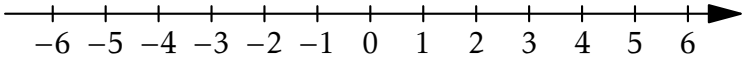
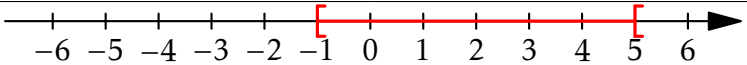
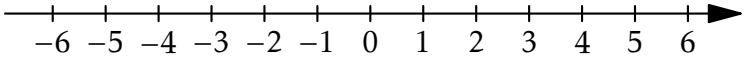
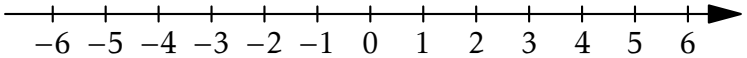
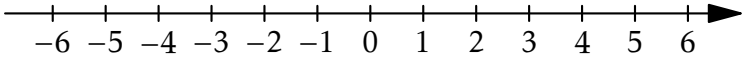
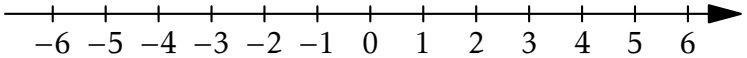
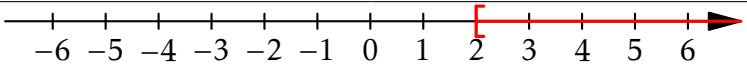
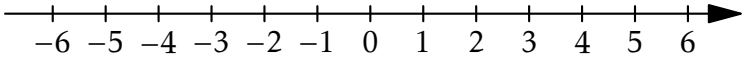
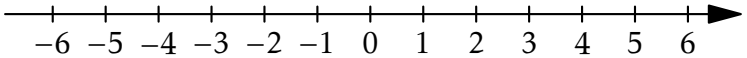
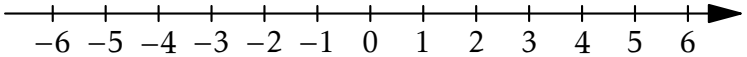
Lycée Les 3 Sources — **Bourg-Lès-Valence**

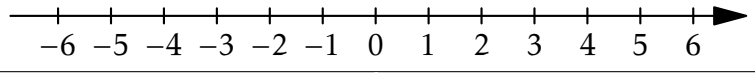
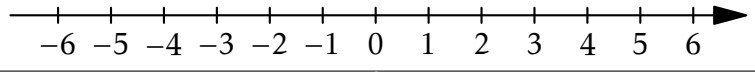
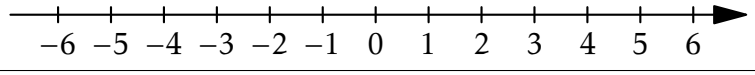
Mathématiques 2de — Année **2025-26**

Exercices sur les intervalles

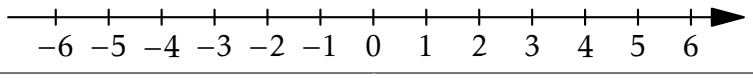
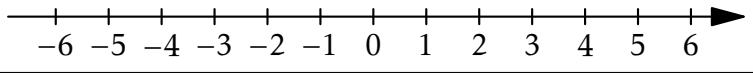
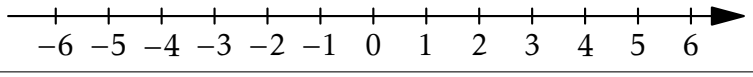
Exercice 1 : Compléter le tableau ci-dessous :

Inégalité	Représentation	Intervalle
$-4 < x \leq 3$		$]-4;3]$
$-3 \leq x < 1$		
$0 \leq x \leq 2$		
$-5 < x < -2$		
		$[2;4]$
		$[-3;0[$
		$]-5;1]$
		
$2 \geq x$		
$x < -3$		
$x \geq 4$		
$1 \leq x$		
		
		$]-1;+\infty[$
		$]-\infty;-2]$
		$]-\infty;0[$

Exercice 2 : Déterminer l'intersection des intervalles suivants :

Intersection	Représentation	Intervalle
$[-4;5] \cap [2;+\infty[$		
$]-\infty;3] \cap]2;4[$		
$[5;+\infty[\cap [-3;5[$		

Exercice 3 : Déterminer l'union des intervalles suivants :

Union	Représentation	Intervalle
$[-4;5] \cup [3;6]$		
$]-\infty;3] \cup]2;4[$		
$[5;+\infty[\cup [-3;5[$		

Exercice 4 : Résoudre dans $\mathbb{R}$ les inéquations suivantes :

1) $2x+1 \leq 5$
2) $5x-1 > 3x+2$
3) $2(x+1) < 5x+1$
4) $7 \geq -3x+1$
5) $4(x+2) > 3(x-1)$
6) $7(x+2) \leq 5(6-x)$
7) $-7x+1 > 3x+5$
8) $3(-x+5) \leq 2x+1$
9) $2(x-3) \geq 8-3x$
10) $x-2 < -11$
11) $4x+12 \leq -8$
12) $-6-3x < 4$
13) $2x \geq 6x-13$
14) $x^2+9x-5 > x^2+x+3$
15) $\dfrac{3x+2}{2} \geq -3$