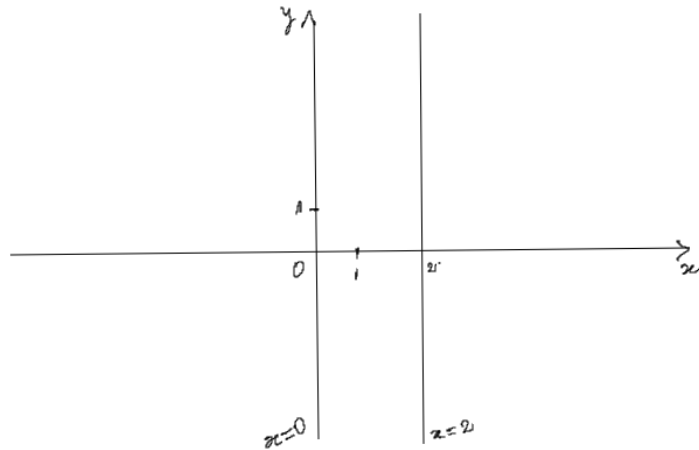


Droites perpendiculaires et droites parallèles.



$$(L_1) \perp (L_2) \Leftrightarrow \begin{cases} (L_1) \cap (L_2) = \{P\} \\ \text{et} \\ \widehat{L_1 P L_2} = 90^\circ \end{cases}$$

$$(Ox) \perp (Oy) \text{ car } (Ox) \cap (Oy) = \{O\} \\ \widehat{xOy} = 90^\circ.$$

$$(L_1) \parallel (L_2) \Leftrightarrow (L_1) \cap (L_2) = \emptyset.$$

$$(L_1): y = m_1 x + b_1$$

$$(L_2): y = m_2 x + b_2$$

$$(L_1) \perp L_2 \Leftrightarrow m_1 m_2 = -1$$

$$L_1 \parallel L_2 \Leftrightarrow m_1 = m_2$$

Droite verticale $\perp$ Droite horizontale
2 droites verticales sont $\parallel$.

Ex,

$$\begin{aligned} L_1: & y = 2x + 1 \\ L_2: & y = x - 1 \\ L_3: & y = +2x + \sqrt{3} \\ L_4: & y = -x + 1 \\ L_5: & x = 1 \\ L_6: & y = -2 \\ L_7: & x = -1 \\ L_8: & y = 0 \end{aligned}$$

Droites $\parallel$	Droites $\perp$
$L_1 \parallel L_3$	$L_2 \perp L_6$
$L_5 \parallel L_7$	$L_5 \perp L_6$
$L_6 \parallel L_8$	$L_5 \perp L_7$
	$L_3 \perp L_7$
	$L_3 \perp L_8$