

Ex 43

x	$-\infty$	1	2	$+\infty$
f	5		$+\infty$	$+\infty$
		4		$-\infty$

$$f(]-\infty, 1]) = [4, 5[$$

$$f([1, 2[) = [4, +\infty[$$

$$f(]2, +\infty[) =]-\infty, +\infty[$$

$$\begin{aligned} f(]-\infty, 2[) &= f(]-\infty, 1]) \cup f([1, 2[) \\ &= [4, 5[\cup [4, +\infty[\\ &= [4, +\infty[\end{aligned}$$