

## SOME SYMBOLS

$\forall$	for all
$\exists$	there exists
$\infty$	infinity
$\Rightarrow$	it implies
$\Leftarrow$	it's implied
$\Leftrightarrow$	if and only if (also “iff”)
$\partial$	partial derivative

## SETS

We'll use capital letters for sets and small letters for its elements. If  $a$  is an element of a set  $A$ , we'll write  $a \in A$ . If the set  $A$  is constituted of the elements  $a, b, c$ , we'll write  $A = \{a, b, c\}$ . If  $d$  is not an element of  $A$ , we'll write  $d \notin A$ .

$\mathbb{N} = \{1, 2, 3, \dots\}$	the set of natural numbers
$\mathbb{Z} = \{0, \pm 1, \pm 2, \pm 3, \dots\}$	the set of integers
$\mathbb{Q} = \left\{ \frac{p}{q} : p \in \mathbb{Z}, q \in \mathbb{Z}, q \neq 0 \right\}$	the set of rational numbers
$\mathbb{R}$	the set of real numbers
$\mathbb{R}^+$	the set of positive real numbers
$\mathbb{R} \setminus \{0\}$	the real numbers minus 0
$\mathbb{C}$	the set of complex numbers
$\emptyset$	the empty set
$\cup$	union of sets
$\cap$	intersection of sets
$\subset$	contained in
$\supset$	it contains

## GREEK LETTERS

$\alpha, A$	alpha	$\eta, H$	eta	$\nu, N$	nu	$\tau, T$	tau
$\beta, B$	beta	$\theta, \vartheta, \Theta$	theta	$\xi, \Xi$	xi	$\upsilon, Y$	upsilon
$\gamma, \Gamma$	gamma	$\iota, I$	iota	$o, O$	omicron	$\phi, \varphi, \Phi$	phi
$\delta, \Delta$	delta	$\kappa, K$	kappa	$\pi, \Pi$	pi	$\chi, X$	chi
$\varepsilon, E$	epsilon	$\lambda, \Lambda$	lambda	$\rho, P$	rho	$\psi, \Psi$	psi
$\zeta, Z$	zeta	$\mu, M$	mu	$\sigma, \Sigma$	sigma	$\omega, \Omega$	omega