

Real Numbers

$\mathbb{N} = \{1, 2, 3, \dots\}$
natural numbers



$\mathbb{Z} = \{\dots, -3, -2, -1, 0, 1, 2, 3, \dots\}$
integers

$\mathbb{Q} = \left\{ \frac{p}{q}, p, q \in \mathbb{Z}; q \neq 0 \right\}$: rational numbers

$\mathbb{R}$ = Real numbers.

Ex Identify the number

$\frac{28}{14}, -\frac{16}{4}, \sqrt{49}, \infty, \ln(3), e \approx 2.718\dots$ (not periodic)
 $(\ln e)^2, 3!, \frac{1}{11}, \frac{13}{7}, \sqrt{7}, 1.\bar{3}, \sqrt{-3}, \frac{1}{0}$

