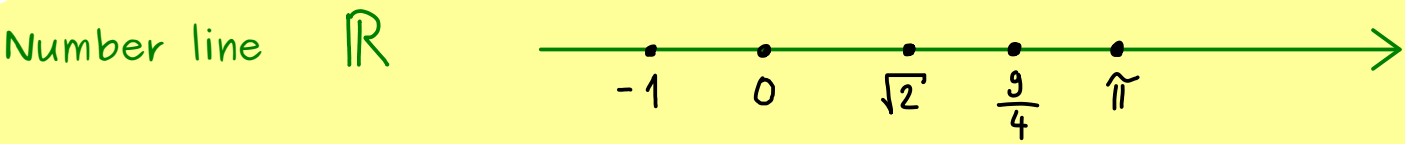




The Bright Side of Mathematics

Start Learning Complex Numbers – Part 1



- field $+$ $\cdot$
- ordering $\leq$ (Archimedean, compatible with $+$ and $\cdot$, ...)
- complete

One can solve a lot of equations:

$$\begin{aligned}x + 5 &= 1, & x + x &= -1 \\x \cdot 5 &= 1 \\x^2 &= 2\end{aligned}$$

We cannot solve: $\underbrace{x^2}_{x \cdot x} = -1$ (because $x^2 \geq 0$ for all $x \in \mathbb{R}$ and $-1 < 0$)

