복소수의 상등 (The Equality of Complex Numbers)

$$a, b, c, d \in \mathbb{R}$$

$$a, b, c, d \in \mathbb{R}$$
  
 $a + bi = c + di$ 

$$a, b, c, d \in \mathbb{R}$$
  
 $a + bi = c + di \Leftrightarrow$ 

$$a, b, c, d \in \mathbb{R}$$
  
 $a + bi = c + di \iff a = c$ 

$$a, b, c, d \in \mathbb{R}$$
  
 $a + bi = c + di \Leftrightarrow a = c \land$ 

$$a, b, c, d \in \mathbb{R}$$
  
 $a + bi = c + di \Leftrightarrow a = c \land b = d$ 

$$a, b, c, d \in \mathbb{R}$$
  
 $a + bi = c + di \Leftrightarrow a = c \land b = d$ 

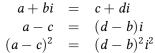
$$a, b, c, d \in \mathbb{R}$$
  
 $a + bi = c + di \Leftrightarrow a = c \land b = d$ 

$$a + bi = c + di$$

$$a, b, c, d \in \mathbb{R}$$
  
 $a + bi = c + di \Leftrightarrow a = c \land b = d$ 

$$a+bi = c+di$$
  
$$a-c = (d-b)i$$

$$a,b,c,d\in\mathbb{R}$$
  $a+bi=c+di\Leftrightarrow a=c\wedge b=d$  Proof



$$a, b, c, d \in \mathbb{R}$$
  
 $a + bi = c + di \Leftrightarrow a = c \land b = d$ 

$$a + bi = c + di$$
  
 $a - c = (d - b)i$   
 $(a - c)^2 = (d - b)^2 i^2$   
 $(a - c)^2 = -(d - b)^2$ 

$$a, b, c, d \in \mathbb{R}$$
  
 $a + bi = c + di \Leftrightarrow a = c \land b = d$ 

$$\begin{array}{rcl}
 a + bi & = & c + di \\
 a - c & = & (d - b)i \\
 (a - c)^2 & = & (d - b)^2 i^2 \\
 (a - c)^2 & = & -(d - b)^2 \\
 (a - c)^2 + (d - b)^2 & = & 0
 \end{array}$$

$$a, b, c, d \in \mathbb{R}$$
  
 $a + bi = c + di \Leftrightarrow a = c \land b = d$ 

$$\begin{array}{rcl}
 a + bi & = & c + di \\
 a - c & = & (d - b)i \\
 (a - c)^2 & = & (d - b)^2 i^2 \\
 (a - c)^2 & = & -(d - b)^2 \\
 (a - c)^2 + (d - b)^2 & = & 0 \\
 a - c = 0 & \wedge & d - b = 0
 \end{array}$$

$$a, b, c, d \in \mathbb{R}$$
  
 $a + bi = c + di \Leftrightarrow a = c \land b = d$ 

$$\begin{array}{rcl}
 a + bi & = & c + di \\
 a - c & = & (d - b)i \\
 (a - c)^2 & = & (d - b)^2 i^2 \\
 (a - c)^2 & = & -(d - b)^2 \\
 (a - c)^2 + (d - b)^2 & = & 0 \\
 a - c = 0 & \wedge & d - b = 0 \\
 a = c & \wedge & b = d
 \end{array}$$

#### Github:

https://min7014.github.io/math20210125001.html

Click or paste URL into the URL search bar, and you can see a picture moving.