

The Conjugate of a Complex Number

Aim

To explain what the conjugate of a complex number is.

Learning Outcomes

At the end of this section you will be able to:

- Understand what the conjugate of a complex number is,
- Symbolically represent the conjugate of a complex number.

If two complex numbers differ only in the sign of their imaginary parts, one is said to be the **conjugate** of the other. The conjugate of a complex number is sometimes referred to as the complex conjugate.

If z represents a complex number, then its conjugate is represented by \bar{z} .

Example

If $z = 3 + 4i$, then the conjugate of z is $\bar{z} = 3 - 4i$.

Related Reading

Morris, O.D., P. Cooke. 1992. *Text & Tests 4*. The Celtic Press.

Stroud, K.A. 2001. *Engineering Mathematics*. 5th Edition. PALGRAVE.