## Complex conjugate



*Complex conjugation* means reflecting the complex plane in the real line.

The notation for the *complex conjugate* of z is either  $\overline{z}$  or  $z^*$ . The complex conjugate has the same real part as z and the same imaginary part but with the opposite sign. That is, if z = a + ib, then  $z^* = a - ib$ .

In polar complex form, the complex conjugate of  $re^{i\theta}$  is  $re^{-i\theta}$ .