



Complex Number Conjugates and Quotients

Today's Standard

HSN.CN.A3 - (+) Find the conjugate of a complex number; use conjugates to find moduli and quotients of complex numbers.

Cues	Notes
What is a complex number?	A complex number is a number in the form $a + bi$, where 'a' is the real part and 'b' is the imaginary part.
How do you find the conjugate of a complex number?	To find the conjugate of a complex number, change the sign of the imaginary part.
What is the modulus of a complex number?	The modulus of a complex number $a + bi$ is $\sqrt{a^2 + b^2}$.
How do you use conjugates to find quotients of complex numbers?	Use the conjugate to rationalize the denominator when dividing complex numbers.
Why are complex number conjugates important?	Conjugates are important in various fields such as engineering, physics, and finance for simplifying complex calculations.

Summary

Complex numbers have a real and an imaginary part. The conjugate of a complex number changes the sign of the imaginary part, and the modulus is the distance from the origin on the complex plane. Conjugates are used to simplify division of complex numbers and have important applications in many fields.