

Complex Numbers: Rectangular Format (22:31)

Describe how complex numbers are expressed in rectangular format

Identify in which quadrants + and – pairs of x and y components are found.

Identify how the imaginary component is distinguished from the real component.

Describe how to add and subtract two complex numbers expressed in rectangular format.

Given the complex numbers $A = 1.3 + j0$ and $B = 0 - j0.5$ perform the operation $A + B = C$

Given the complex numbers $D = 5 + j2$ and $E = 10 + j3$ perform the operation $D + E = F$. Identify in which quadrants D, E, and F appear.

Given the complex numbers $D = 5 + j2$ and $E = 10 + j3$ perform the operation $D - E$

Given the following complex numbers expressed in rectangular format perform the indicated operations:

① $A = 2.9 + j4.1$	② $A = -0.5 - j3.0$	③ $A = -6.0 + j9.1$	④ $A = 5.7 + j8.1$	⑤ $A = 8.2$
$B = -5.0 + j5.3$	$B = 6.1 - j5.9$	$B = -4.6 - j5.4$	$B = 0.9 - j4.7$	$B = 0.5 + j7.0$
$A + B =$	$A + B =$	$A + B =$	$A + B =$	$C = -j7.1$
$A - B =$	$A - B =$	$A - B =$	$A - B =$	$A + B + C =$