

### Resta de números complejos

La **diferencia de números complejos** se realiza restando partes reales entre sí y partes imaginarias entre sí.

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

$$\begin{aligned} (5 + 2i) - (4 - 2i) &= \\ = (5 - 4) + (2 + 2)i &= \mathbf{1 + 4i} \end{aligned}$$

### EJERCICIOS RESUELTOS

1. Resolver:  $Z_1 - Z_2$   
 $Z_1 = 3 + 5i$   
 $Z_2 = 7 + 2i$

$$\begin{aligned} Z_1 - Z_2 &= (3 + 5i) - (7 + 2i) \\ Z_1 - Z_2 &= (-4 + 3i) \end{aligned}$$

Respuesta:

$$\mathbf{Z_1 - Z_2 = (-4 + 3i)}$$

2. Resolver:  $Z_1 - Z_2$   
 $Z_1 = 4i$   
 $Z_2 = 7 + 3i$

$$\begin{aligned} Z_1 - Z_2 &= (4i) - (7 + 3i) \\ Z_1 - Z_2 &= (7 + i) \end{aligned}$$

Respuesta:

$$\mathbf{Z_1 - Z_2 = (7 + i)}$$

3. Resolver:  $Z_1 - Z_2 - Z_3$   
 $Z_1 = 4 + 5i$   
 $Z_2 = 13 + 2i$   
 $Z_3 = 4 + i$

$$\begin{aligned} Z_1 - Z_2 - Z_3 &= (4 + 5i) - (13 + 2i) - \\ &\quad (4 + i) \\ Z_1 - Z_2 - Z_3 &= (-13 + 2i) \end{aligned}$$

Respuesta:

$$\mathbf{Z_1 - Z_2 - Z_3 = (-13 + 2i)}$$

4. Resolver:  $Z_1 - Z_2 - Z_3 - Z_4$   
 $Z_1 = 1 + 3i$   
 $Z_2 = 3 + 8i$   
 $Z_3 = 40 + 33i$   
 $Z_4 = 15 + 4i$

$$\begin{aligned} Z_1 - Z_2 - Z_3 - Z_4 &= \\ &= (1 + 3i) - (3 + 8i) \\ &\quad - (40 + 33i) - (15 + 4i) \end{aligned}$$

$$Z_1 - Z_2 - Z_3 - Z_4 = (-57 - 42i)$$

Respuesta:

$$\mathbf{Z_1 - Z_2 - Z_3 - Z_4 = (-57 - 42i)}$$

5. Resolver:  $Z_1 - Z_2$   
 $Z_1 = 12 + 34i$   
 $Z_2 = 5 + 9i$

$$\begin{aligned} Z_1 - Z_2 &= (12 + 34i) - (5 + 9i) \\ Z_1 - Z_2 &= (7 + 25i) \end{aligned}$$

Respuesta:

$$Z_1 - Z_2 = (7 + 25i)$$

6. Resolver:  $Z_1 - Z_2 - Z_3$   
 $Z_1 = 3 + 2i$   
 $Z_2 = 1 + 9i$   
 $Z_3 = 2 + 6i$

$$Z_1 - Z_2 - Z_3 = (3 + 2i) - (1 + 9i) - (2 + 6i)$$

$$Z_1 - Z_2 - Z_3 = (-13i)$$

Respuesta:

$$Z_1 - Z_2 - Z_3 = (-13i)$$

7. Resolver:  $Z_1 - Z_2$   
 $Z_1 = -3 + 2i$   
 $Z_2 = -9 + 2i$

$$Z_1 - Z_2 = (-3 + 2i) - (-9 + 2i)$$

$$Z_1 - Z_2 = -3 + 2i + 9 - 2i$$

$$Z_1 - Z_2 = 6$$

Respuesta:

$$Z_1 - Z_2 = 6$$

8. Resolver:  $Z_2 - Z_1$   
 $Z_1 = 15 - 3i$   
 $Z_2 = -7 + 2i$

$$Z_2 - Z_1 = (-7 + 2i) - (15 - 3i)$$

$$Z_2 - Z_1 = (-22 + 5i)$$

Respuesta:

$$Z_2 - Z_1 = (-22 + 5i)$$

9. Resolver:  $Z_1 - Z_2 + Z_3$   
 $Z_1 = 3 + i$   
 $Z_2 = -1 + 5i$   
 $Z_3 = -7 + 3i$

$$Z_1 - Z_2 + Z_3 = (3 + i) - (-1 + 5i) + (-7 + 3i)$$

$$Z_1 - Z_2 + Z_3 = (-3 - i)$$

Respuesta:

$$Z_1 - Z_2 + Z_3 = (-3 - i)$$

10 Resolver:  $Z_1 - Z_2$   
 $Z_1 = \sqrt{5}$   
 $Z_2 = -\sqrt{5} - \sqrt{3}i$

$$Z_1 - Z_2 = \sqrt{5} - (-\sqrt{5} - \sqrt{3}i)$$

$$Z_1 - Z_2 = (2\sqrt{5} + \sqrt{3}i)$$

Respuesta:

$$Z_1 - Z_2 = (2\sqrt{5} + \sqrt{3}i)$$

Profesor: Militza Indaburo Fe y Alegría Versión:2016-06-06

## **Glosario**

## **Otras Referencias**

Videos.

