

Define:

1. Empty set

It is a set, a unique set having no elements; its size or cardinality (count of elements in a set) is zero.

(ii) Singleton set

It is a set, also known as "unit set", with exactly one element.

2. If $A = 2 + 7i$ and $B = 9 - 5i$ Find (i) $\text{Im}(A/B)$ (ii) $\text{Re}(B-A)$

Solution

$$A \text{ imaginary} = 7 \quad A \text{ Real} = 2$$

$$B \text{ imaginary} = -5 \quad B \text{ Real} = 9$$

$$\text{Imaginary}(A/B) = 7/-5$$

$$\begin{aligned} \text{Real}(B-A) &= -5 - 9 \\ &= -14 \end{aligned}$$