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Electrical Engineering  
MAT101

1.) Define the following

i.) Empty set: The empty set is a set that has no members.

Notation: The symbol is  $\emptyset$  is used to represent the empty set?

ii.) Singleton set: Is a set that contains one element. The singleton set can

be defined as a set that contains exactly one element

e.g.  $\{a\}, \{\emptyset\}$

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

ii.)  $\text{Re}(B-A)$

Solution

$$\text{i.) } \text{Im}(A/B) = 7/5 = 1.4i$$

$$\text{ii.) } \text{Re}(B-A) = 9 - 2 = 7$$