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191 EN605/023

MECHATRONICS

MATHS101

1 Empty set: A set is empty or null if <sup>it</sup> contains no element

Singleton set: is a set that contains only one ~~s~~ element

2  $A = 2 + 7i$

$$B = 9 - 5i$$

$$\text{Im}(A/B)$$

$$A/B = \frac{2+7i}{9-5i}$$

rationalizing

$$\frac{2+7i}{9-5i} \times \frac{(9+5i)}{(9+5i)}$$

$$\frac{18 + 10i + 63i - 35}{81 + 45i - 45i + 25}$$
$$\frac{-17 + 73i}{106}$$

$$\frac{-17}{106} + \frac{73i}{106}$$

$$\text{Im}(A/B) = \frac{73i}{106} //$$

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

$$B-A = (9-5i) - (2+7i)$$

$$9-2 - 5i-7i$$

$$7 - 12i$$

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