



Number Types (Complex) - Set Builder Definition to Classification - Real, Imaginary, and Complex Numbers

1 What type of number does this set definition represent

$$\{a + bi \mid a, b \in \mathbb{R}, b \neq 0\}$$

- | | |
|----------------|--------------------|
| A Real Number | B Natural Number |
| C Whole Number | D Imaginary Number |

What type of number does this set definition represent

$$\{x \mid x \in \mathbb{R}\}$$

- | | |
|---------------------|----------------|
| A Natural Number | B Real Number |
| C Irrational Number | D Whole Number |

3 What type of number does this set definition represent

$$\{a + bi \mid a, b \in \mathbb{R}\}$$

- | | |
|------------------|-------------------|
| A Natural Number | B Complex Number |
| C Whole Number | D Rational Number |

4 What type of number does this set definition represent

$$\{x \mid x \in \mathbb{N}\}$$

- | |
|---------------------|
| A Natural Number |
| B Irrational Number |

5 What type of number does this set definition represent

$$\{x \mid x \in \mathbb{W}\}$$

- | |
|---------------------|
| A Irrational Number |
| B Whole Number |

6 What type of number does this set definition represent

$$\{x \mid x \in \mathbb{Q}\}$$

- | | |
|-------------------|---------------------|
| A Natural Number | B Irrational Number |
| C Rational Number | D Whole Number |

7 What type of number does this set definition represent

$$\{bi \mid b \in \mathbb{R}, b \neq 0\}$$

- | | |
|---------------------|-------------------------|
| A Real Number | B Rational Number |
| C Irrational Number | D Pure Imaginary Number |

8 What type of number does this set definition represent

$$\{x \mid x \in \mathbb{R}, x \notin \mathbb{Q}\}$$

- | | |
|---------------------|-------------------|
| A Irrational Number | B Rational Number |
| C Whole Number | D Natural Number |