



Number Types (Real) - Set Builder Definition to Description - Whole, Natural, Integer, Rational, Irrational Numbers

1 Select the description that matches this set definition $\{x \mid x \in \mathbb{R}\}$

A A positive integer (1, 2, 3, ...). B A non-negative integer (0, 1, 2, 3, ...).

C Any number that can be found on the number line, including both rational and irrational. D A number that cannot be expressed as a simple fraction (e.g. $\sqrt{2}$, π).

2 Select the description that matches this set definition

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

A Any number that can be found on the number line, including both rational and irrational. B A positive integer (1, 2, 3, ...).
C A number that cannot be expressed as a simple fraction. D Any number that can be expressed as a fraction of two integers (e.g. $1/2$, $-3/4$, 5).

3 Select the description that matches this set definition $\{x \mid x \in \mathbb{N}\}$

A A positive integer (1, 2, 3, ...). B A number that cannot be expressed as a simple fraction (e.g. $\sqrt{2}$, π).

C Any number that can be expressed as a fraction of two integers (e.g. $1/2$, $-3/4$, 5). D Any number that can be found on the number line, including both rational and irrational.

4 Select the description that matches this set definition $\{x \mid x \in \mathbb{W}\}$

A A non-negative integer (0, 1, 2, 3, ...). B Any number that can be expressed as a fraction of two integers (e.g. $1/2$, $-3/4$, 5).

C A positive integer (1, 2, 3, ...). D Any number that can be found on the number line, including both rational and irrational.

5 Select the description that matches this set definition $\{x \mid x \in \mathbb{Q}\}$

A A non-negative integer (0, 1, 2, 3, ...). B A number that cannot be expressed as a simple fraction (e.g. $\sqrt{2}$, π).

C Any number that can be expressed as a fraction of two integers (e.g. $1/2$, $-3/4$, 5). D A positive integer (1, 2, 3, ...).