Types of Real Numbers

Symbols for number sets:

R – the set of real numbers

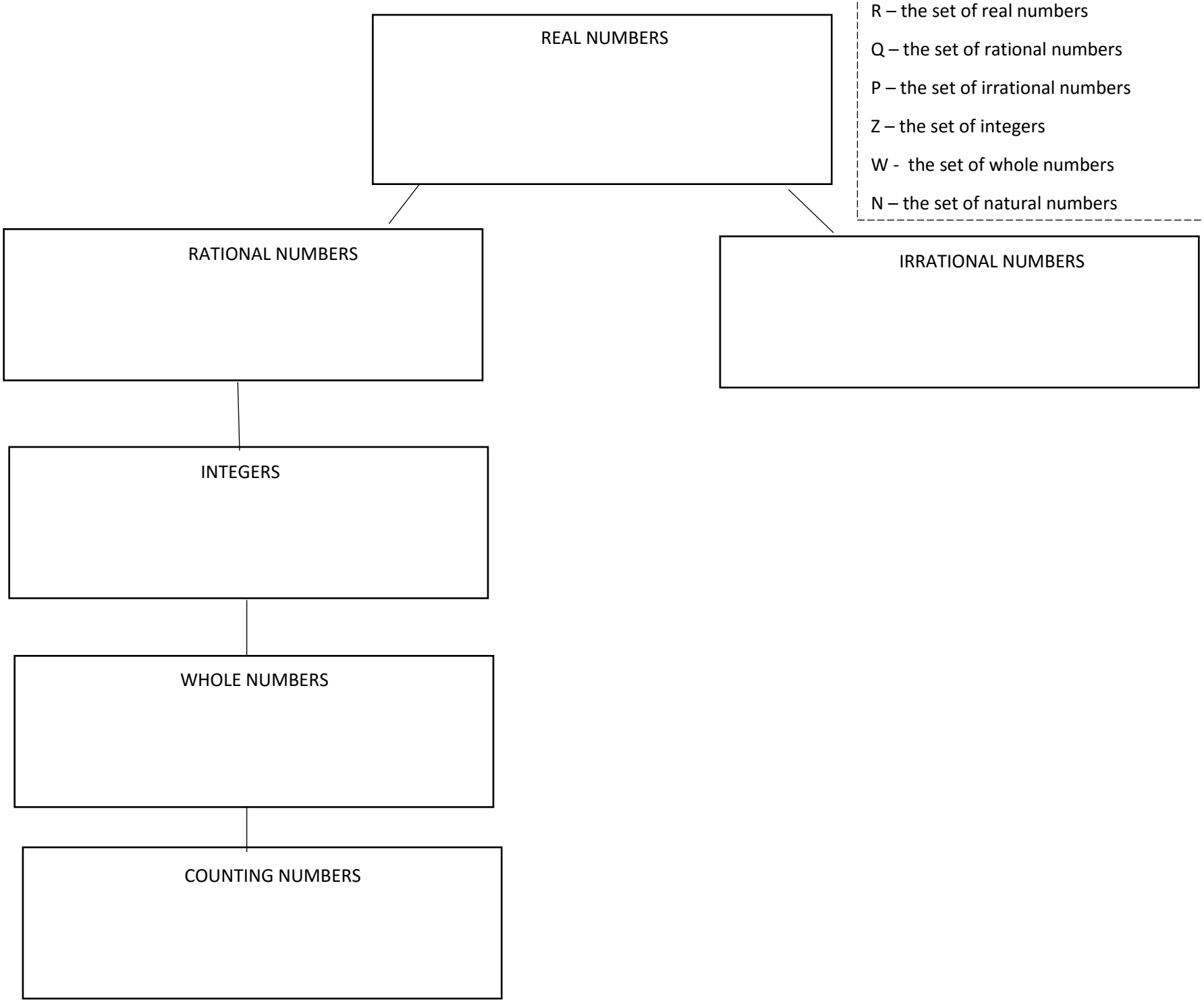
Q – the set of rational numbers

P – the set of irrational numbers

Z – the set of integers

W - the set of whole numbers

N – the set of natural numbers



Place an X in each correct box that represents that number.

	Real Number	Rational Number	Irrational Number	Integer	Whole Number	Natural Number
-6						
$\sqrt{9}$						
$-\frac{2}{7}$						
3						
1.74						
3.999.....						
-1.3						
$-\sqrt{25}$						
$\frac{0}{4}$						
$.\overline{2}$						
145.95556						
$\frac{76}{0}$						

Sets of Numbers

Set: In mathematics, a set is a collection of elements. The symbols { } are used to enclose the elements in a set. They are usually titled/named by a capital letter.

Ex 1) the set A = {a,e,i,o,u} represents the vowels in the English alphabet

Ex 2) The set B = {1,3,5,7} represent the first 4 positive odd numbers

Different Methods of Representing Sets:

Notation Type	Example	Example
Roster Notation	A = {a,e,i,o,u}	B = {1,3,5,7}
Set-Builder Notation	A = { x | x is a vowel in the English alphabet }	

Ex) Represent the following in set-builder notation.

a) {8, 16, 24, 32…}

Ex) Represent the following in roster notation:

b) [x | x is a multiple of 3 that is less than 22}