



Name _____ Period _____ Date _____

Categorizing Numbers in the Subsets of Real Numbers

counting/natural numbers $\{1, 2, 3, 4, \dots\}$

whole numbers $\{0, 1, 2, 3, \dots\}$

integers $\{\dots, -3, -2, -1, 0, 1, 2, 3, \dots\}$

rational number: any number that can be written in the form of $\frac{a}{b}$, where a and b are integers and b is not 0. Note: all rational numbers have decimal forms that terminate or repeat.

irrational number: any number that cannot be written as a quotient of two integers.

real numbers: consists of all rational and irrational numbers.

Place each of the following numbers on the Venn diagram below.

-5 $\frac{1}{3}$ 0 1.7 $\sqrt{2}$ $-0.12\overline{12}$ $\frac{22}{7}$ π $6\frac{4}{9}$ 8

