Name _____ Class _____ Date _____

Reteaching 1-3

Exploring Real Numbers

OBJECTIVE: Classifying numbers **MATERIALS:** None

Review the following chart which shows the different classifications of real numbers.

Real

- **Rational** — terminating or repeating decimals — $\frac{3}{5}$, $-\frac{5}{3}$, 8.42 → **Integers** . . . −3, −2, −1, 0, 1, 2, 3, . . . → **Whole** 0, 1, 2, 3, . . . → **Natural** 1, 2, 3, . . .
- **Irrational** — infinite, nonrepeating decimals — π, $\sqrt{2}$, 3.767667666 . . .

Example

Given the numbers $-4.4, \frac{14}{5}, 0, -9, 1\frac{1}{4}, -\pi$ and 32, tell which numbers belong to each set.

Natural:	32	numbers used to count
Whole:	0, 32	natural numbers and zero
Integers:	0, −9, 32	whole numbers and their opposites
Rational:	$-4.4, \frac{14}{5}, 0, -9, 1\frac{1}{4}, 32$	integers and terminating and nonrepeating decimals
Irrational:	$-\pi$	infinite, nonrepeating decimals
Real:	$-4.4, \frac{14}{5}, 0, -9, 1\frac{1}{4}, -\pi, 32$	rational and irrational numbers

Exercises

Name the set(s) of numbers to which each number belongs.

1. $\frac{-5}{6}$ **2.** 35.99 **3.** 0 **4.** $4\frac{1}{8}$

5. $\sqrt{5}$ **6.** −80 **7.** $\frac{17}{5}$ **8.** $\frac{12}{3}$

9. $\sqrt{100}$ **10.** $-\sqrt{4}$ **11.** 3.24 **12.** 3π

Give an example of each kind of number.

13. irrational number **14.** whole number

15. negative integer **16.** fractional rational number

17. rational decimal **18.** natural number

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