

Fullname: _____

No: ____

RATIONAL and IRRATIONAL NUMBERS

Remember that an **Irrational Number** is a real number that **cannot** be written as a simple fraction.
Some famous Irrational Numbers:

- 1.) Pi π - People have calculated Pi to over a quadrillion decimal places and still there is no pattern.
The first few digits look like this: **3.14** (and more ...)
- 2.) Euler's Number e - People have also calculated e to lots of decimal places without any pattern showing.
The first few digits look like this: **2.71** (and more ...)
- 3.) Many square roots, cube roots, etc are also irrational numbers.
Examples: $\sqrt{3} = 1.73$ (and more...) $\sqrt{99} = 9.94$ (and more...)
We use "..." to show that there are more numbers that would go on and on

Directions: Sort the following numbers.

Rational	Irrational

3.14	0.444	$\sqrt{121}$	$\sqrt{1000}$	π
$\frac{\pi}{7}$	0.333...	1.12313...	$0.1\overline{2}$	e
$\sqrt[3]{9}$	$2.\overline{9}$	$2e$	$1.\overline{234}$	$\sqrt[3]{8}$