The Set of Real Numbers

Rational numbers

(*Form:* $\frac{p}{q}$ *where* p *and* q *are Integers*, $q \neq 0$)

Fractions $\frac{1}{2}, \frac{3}{5}, 5\frac{6}{7}$

Terminating decimals 2.56 , 0.3

Repeating decimals 0.1616 . . .

Perfect roots $\sqrt{25}, \sqrt[3]{8}$

Integers

(*the negative and positive whole numbers and zero*)

...-3 , -2, -1, 0, 1, 2, 3, ...

Whole numbers

(*the counting numbers and zero*)

0, 1, 2, 3, ...

Natural numbers

(*the original counters*)

1, 2, 3, 4, ...

Irrational numbers

(*endless unpredictability*)

Non-repeating, non-terminating decimal numbers

$\pi \approx 3.14159$ .....

$e \approx 2.71828$ .....

Non-perfect roots

$\sqrt{2} \approx 1.414312$ .....

$\sqrt[3]{12} \approx 2.28942$ ....