

Notes for Section 9.2 – “The Real Number System”

Real Numbers – Any number

Number	Decimal Form	Decimal Type	Type
$\frac{3}{4}$	0.75	Terminating	Rational
$\frac{1}{11}$.0909....	Repeating	Rational
$\sqrt{3}$	1.7320508	Non-repeating	Irrational

Rational Numbers – Numbers that terminate or repeat.

Irrational Numbers – Do not terminate or repeat.

Fractions whose decimal equivalents you are expected to know

$$\frac{1}{4} = 0.25$$

$$\frac{1}{2} = 0.5$$

$$\frac{3}{4} = 0.75$$

$$\frac{1}{3} = 0.\overline{3}$$

$$\frac{2}{3} = 0.\overline{6}$$