## **Am I Rational or Irrational?**

## Cubed Roots ->

• If the radicand is a perfect cube, it is

Rational

$\sqrt[3]{1} = 1$	$\sqrt[3]{8} = 2$	$\sqrt[3]{27} = 3$	$\sqrt[3]{64} = 4$	$\sqrt[3]{125} = 5$
$\sqrt[3]{216} = 6$	$\sqrt[3]{343} = 7$	$\sqrt[3]{512} = 8$	$\sqrt[3]{729} = 9$	$\sqrt[3]{1000} = 10$

• If the radicand is NOT a perfect cube, it is

○ Examples:  $\sqrt[3]{35} \approx 3.27106631018859...$ 

 $\sqrt[3]{radicand}$ 

## Squared Roots $\longrightarrow \sqrt{radicand}$

• If the radicand is a perfect square, it is \_\_\_\_\_\_

Rational

$\sqrt{1}$	$\sqrt{4}$	$\sqrt{9}$	$\sqrt{16}$	$\sqrt{25}$	$\sqrt{36}$	$\sqrt{49}$	$\sqrt{64}$	$\sqrt{81}$
=1	=2	=3	=4	=5	=6	=7	=8	=9
$\sqrt{100}$	$\sqrt{121}$	$\sqrt{144}$	$\sqrt{169}$	$\sqrt{196}$	$\sqrt{225}$	$\sqrt{256}$	$\sqrt{289}$	$\sqrt{324}$
=10	=11	=12	=13	=14	=15	=16	=17	=18
$\sqrt{361}$	$\sqrt{400}$	$\sqrt{441}$	$\sqrt{484}$	$\sqrt{529}$	$\sqrt{576}$	$\sqrt{625}$		
=19	=20	=21	=22	=23	=24	=25		

• If the radicand is NOT a perfect square, it is

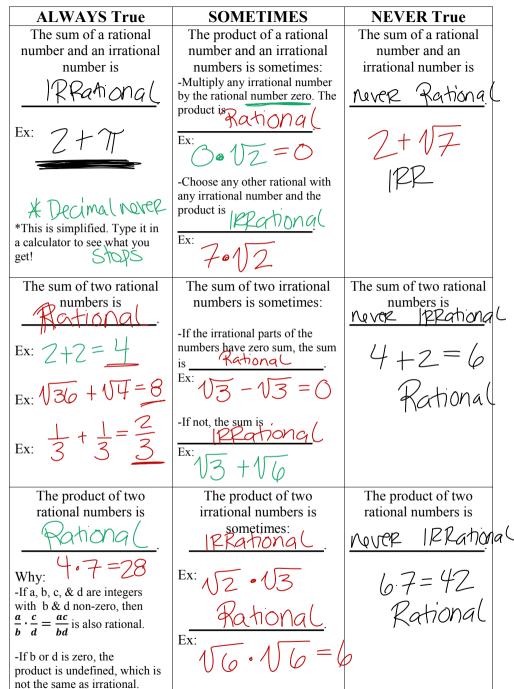
○ Example:  $\sqrt{38} \approx 6.164414002968976...$ 

Simple Fractions Written with WHEGE F

1

• They are \_\_\_\_\_\_ because you can divide the numerator (top number) by the denominator (bottom number) and the numbers after the decimal either terminate (stop) or they repeat.

**Fractions Written with** 



0.19