

SECONDARY MATH II  
EXTENDING THE NUMBER SYSTEM  
RATIONAL VS IRRATIONAL NUMBERS

NAME \_\_\_\_\_  
DATE \_\_\_\_\_  
CLASS \_\_\_\_\_

The following are examples of <i>rational numbers</i> :	The following are examples of <i>irrational numbers</i> :
Instructions: Put each number below into your calculator and write out the decimal to 10 places of accuracy or until it terminates.	Instructions: Put each number below into your calculator and write out the decimal to 10 places of accuracy.
5	$\sqrt{2}$
$\sqrt{16}$	$\sqrt{5}$
-2	$\pi$
$\frac{3}{4}$	$\sqrt{48}$
$\frac{2}{3}$	$\sqrt[3]{43}$
$\frac{8}{9}$	$\sqrt[4]{22}$
$\sqrt{64}$	e
$\frac{7}{8}$	$\sqrt[3]{1527}$
$\sqrt[3]{125}$	$\sqrt{528}$
125/999	
$\sqrt[4]{256}$	
478/1000	

What are some criteria for numbers to be *rational*?

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What are some criteria for numbers to be *irrational*?

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What would be a good definition for *rational* numbers?

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What would be a good definition for *irrational* numbers?

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