

CLASSIFY NUMBERS NOTES

Square Roots		
$\sqrt{1} = 1$	$\sqrt{36} = 6$	$\sqrt{121} = 11$
$\sqrt{4} = 2$	$\sqrt{49} = 7$	$\sqrt{144} = 12$
$\sqrt{9} = 3$	$\sqrt{64} = 8$	$\sqrt{169} = 13$
$\sqrt{16} = 4$	$\sqrt{81} = 9$	$\sqrt{196} = 14$
$\sqrt{25} = 5$	$\sqrt{100} = 10$	$\sqrt{225} = 15$

	RATIONAL	IRRATIONAL
Square roots √	<p style="text-align: center;"><u>perfect square</u></p> <p>$\sqrt{9} = 3$ $\sqrt{81} = 9$ $\sqrt{25} = 5$ $\sqrt{36} = 6$ $\sqrt{49} = 7$ $\sqrt{100} = 10$</p> <p>Ex: $\sqrt{1} = 1$ $\sqrt{0} = 0$</p>	<p style="text-align: center;"><u>non-perfect square</u></p> <p>$\sqrt{21}$ $\sqrt{11}$ $\sqrt{2}$ $\sqrt{7}$ $\sqrt{80}$ $\sqrt{42}$</p> <p>Ex: $\sqrt{63}$ $\sqrt{15}$</p>
Fractions (includes Integers)	<p style="text-align: center;">proper / improper</p> <p>$\frac{1}{2}, \frac{3}{4}$ $\frac{4}{3}, \frac{5}{4}$</p> <p style="text-align: center;">Mixed number</p> <p>$3\frac{1}{2} \rightarrow \frac{7}{2}$</p> <p>Ex:</p>	<p style="text-align: center;">$\frac{\sqrt{3}}{2}$, $\frac{\sqrt{15}}{7}$</p> <p style="text-align: center;">$\frac{\pi}{5}$</p> <p>Ex:</p>
Decimals	<p style="text-align: center;">terminating (stop)</p> <p>5.3 -0.762</p> <p>Ex: -5.32756</p> <hr/> <p style="text-align: center;">Repeating (pattern)</p> <p>$3.121212... = 3.\overline{12}$ $-7.024024... = -7.\overline{024}$</p> <p>Ex:</p>	<p style="text-align: center;">decimals that go on forever (no pattern)</p> <p>Ex: -4.1324....</p> <p style="text-align: center;">52.0189....</p> <p>Ex: π , 3π</p>

Write R for Rational or I for Irrational below each number:



Name _____ Per _____

IF ELLA FITZGERALD MARRIES DARTH VADER, WHAT IS HER NEW NAME?

Decide if the number is RATIONAL or IRRATIONAL. Circle the number below your choice.
Cross off the number and letter above it in the key below to find the answer to the question.

	Rational	Irrational
π		✓
-3	✓	
$\frac{1}{5}$	✓	
0.54237...		✓
0.9	✓	
7.47474...	✓	
2π		✓
178	✓	
$2\frac{1}{2}$	✓	
2.1221222...		✓

	Rational	Irrational
$\frac{9}{5}$	✓	
-1259	✓	
$\frac{\pi}{5}$		✓
$22.\overline{7}$	✓	
12	✓	
9.292299...		✓
13.5849...		✓
6	✓	
12.121212...	✓	
-3π		✓

$\sqrt{20}$

✓