

Rational and Irrational Numbers

Study Guide

1. Label the following numbers as either Rational (R) or Irrational (I)

$\sqrt{\frac{5}{7}}$	$\frac{\pi}{4}$ <i>3.14...</i>	$\sqrt{2}$	$.333 \dots$ <i>repeating</i>	$\sqrt{\frac{1}{81}}$ <i>perfect squares</i>	2.9 <i>it ends</i>	$-\frac{13}{8}$ <i>a fraction with whole numbers</i>
<div style="border: 1px solid black; padding: 5px; display: inline-block;">I</div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;">I</div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;">I</div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;">R</div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;">R</div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;">R</div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;">R</div>

use your rational # notes $\sqrt{25}$ $\sqrt{36}$

2. Which expressions have a value between 5 and 6?

A. $\sqrt{36}$
 B. $\pi + 25 - 3.14 + 25 = 28.14$
 C. $\sqrt{5} - \sqrt{4} - \frac{\sqrt{9}}{3} = 2.3$
 D. 2π
 $2(3.14) = 6.28$

3. Which of the following sets of numbers are in order from greatest to least?

a. $\sqrt{81}, 7, \sqrt{9}, \pi$ *9, 7, 3, 3.14*
 b. $6, 2\pi, \sqrt{49}, \sqrt{60}$ *6, 6.28, 7, 3.7*
 c. $2\pi, 5, \sqrt{17}, \sqrt{16}$ *6.28, 5, 4.1, 4*
 d. $\sqrt{17}, \sqrt{21}, 5, \pi + 3$ *4.1, 4.6, 5, 6.14*

~~4.~~ How can the decimal 0.33... be expressed as a decimal?

Show your work.

Answer: _____