

## Rational vs Irrational Numbers

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Name \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_

**Directions: Use the information given to solve each problem.**

1. Which list shows **only** rational numbers?

A.  $\sqrt{2}$ ,  $-\pi$ ,  $5\sqrt{12}$

B.  $\frac{1}{2}$ ,  $4$ ,  $-3.75$

C.  $0.333\dots$ ,  $\sqrt{7}$ ,  $\pi$

D.  $8$ ,  $\frac{7}{3}$ ,  $\sqrt{11}$

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2. Which list shows **only** irrational numbers?

A.  $3\sqrt{2}$ ,  $\sqrt{5}$ ,  $\pi$

B.  $\frac{4}{3}$ ,  $12$ ,  $-4.5$

C.  $0.5$ ,  $\sqrt{4}$ ,  $5\pi$

D.  $23$ ,  $\frac{1}{3}$ ,  $\sqrt{10}$

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3. Which list shows **only** irrational numbers?

A.  $5\sqrt{4}$ ,  $\sqrt{9}$ ,  $\sqrt{25}$

B.  $\frac{25}{3}$ ,  $\sqrt{2}$ ,  $-4.5$

C.  $\sqrt{12}$ ,  $\sqrt{3}$ ,  $5\pi$

D.  $2.13$ ,  $\frac{21}{3}$ ,  $\sqrt{10}$

4. Which list shows **only** irrational numbers?

A.  $5\sqrt{4}$ ,  $\sqrt{9}$ ,  $\sqrt{25}$

B.  $\frac{25}{3}$ ,  $\sqrt{2}$ ,  $-4.5$

C.  $\sqrt{12}$ ,  $\sqrt{3}$ ,  $5\pi$

D.  $2.13$ ,  $\frac{21}{3}$ ,  $\sqrt{10}$

5. For each number, indicate whether it is rational or irrational.

	Rational	Irrational
$\frac{2}{7}$	<input type="checkbox"/>	<input type="checkbox"/>
$\sqrt{7}$	<input type="checkbox"/>	<input type="checkbox"/>
$\frac{20}{\sqrt{16}}$	<input type="checkbox"/>	<input type="checkbox"/>
$4\pi$	<input type="checkbox"/>	<input type="checkbox"/>
$\frac{4}{9}$	<input type="checkbox"/>	<input type="checkbox"/>

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Name \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_

### Answer Key

Directions: Use the information given to solve each problem.

1. Which list shows **only** rational numbers?

A.  $\sqrt{2}$ ,  $-\pi$ ,  $5\sqrt{12}$

B.  $\frac{1}{2}$ , 4, -3.75 **B**

C. 0.333...,  $\sqrt{7}$ ,  $\pi$

D. 8,  $\frac{7}{3}$ ,  $\sqrt{11}$

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2. Which list shows **only** irrational numbers?

A.  $3\sqrt{2}$ ,  $\sqrt{5}$ ,  $\pi$

B.  $\frac{4}{3}$ , 12, -4.5 **A**

C. 0.5,  $\sqrt{4}$ ,  $5\pi$

D. 23,  $\frac{1}{3}$ ,  $\sqrt{10}$

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3. Which list shows **only** irrational numbers?

A.  $5\sqrt{4}$ ,  $\sqrt{9}$ ,  $\sqrt{25}$

B.  $\frac{25}{3}$ ,  $\sqrt{2}$ , -4.5 **C**

C.  $\sqrt{12}$ ,  $\sqrt{3}$ ,  $5\pi$

D. 2.13,  $\frac{21}{3}$ ,  $\sqrt{10}$

4. Which list shows **only** irrational numbers?

A.  $5\sqrt{4}$ ,  $\sqrt{9}$ ,  $\sqrt{25}$

B.  $\frac{25}{3}$ ,  $\sqrt{2}$ ,  $-4.5$  C

C.  $\sqrt{12}$ ,  $\sqrt{3}$ ,  $5\pi$

D.  $2.13$ ,  $\frac{21}{3}$ ,  $\sqrt{10}$

5. For each number, indicate whether it is rational or irrational.

	Rational	Irrational
$\frac{2}{7}$	<input checked="" type="radio"/>	<input type="checkbox"/>
$\sqrt{7}$	<input type="checkbox"/>	<input checked="" type="radio"/>
$\frac{20}{\sqrt{16}}$	<input checked="" type="radio"/>	<input type="checkbox"/>
$4\pi$	<input type="checkbox"/>	<input checked="" type="radio"/>
$\frac{4}{9}$	<input checked="" type="radio"/>	<input type="checkbox"/>