

Objective #5

Determine if numbers are irrational

1. Which of the following is an irrational number?

[A] $\sqrt{5}$

[B] 3.14

[C] $-\sqrt{9}$

[D] $-\frac{1}{\sqrt{49}}$

↓
rational

↓
simplifies
to -3.

↓
simplifies
to $-\frac{1}{7}$

2. Which of the following is an irrational number?

[A] $\sqrt{78}$

[B] $\frac{-5}{11}$

[C] 0.0262626...

[D] $\sqrt{100}$

↓
rational

repeating
decimal ⇒
rational

↓
simplifies
to 10.

3. Classify $\sqrt{7}$ as rational or irrational.

does not simplify.

4. Identify the irrational number: $\sqrt{69}$, $\sqrt{81}$, 0.8575757, ..., $\frac{5}{7}$.

9
↓
terminating
decimal

↓
rational