

# Is it "Rational" or "Irrational"?

Rational numbers either END or Repeat with a pattern

Some examples are...  $8.112$   $\sqrt{25}$   $\frac{2}{3}$   $-7.222\dots$

Irrational numbers NEVER END AND Do NOT have a pattern.

Some examples are...  $7.01001000100001\dots$   
 $\sqrt{17}$   $\pi$

Write R for "Rational" or I for "Irrational" for each problem. Then state why.

1. 7

R  
Ends

2. 9.8

R  
Ends

3. 7.121212...

R  
repeating  
pattern

4.  $\pi$

I  
- Never Ends  
- No Pattern

5.  $\frac{4}{5}$

R  
Ends

6.  $\sqrt{8}$

I  
- Never Ends  
- No Pattern

7.  $\sqrt{81}$

R  
Ends

8.  $\sqrt[3]{8}$

R  
Ends

9. 8.913475...

I  
- Never Ends  
- No Pattern

10. -17

R  
Ends

11.  $\frac{1}{3}$

R  
repeating  
pattern

12. 5.143

R  
Ends

13. 8.444...

R  
repeating  
pattern

14.  $\sqrt{20}$

I  
- Never Ends  
- No Pattern

15. -9.4317

R  
Ends

16.  $\sqrt{64}$

R  
Ends