

1. Is $\frac{3}{4}$ rational or irrational?

It IS a fraction

Answer: rational

2. Is $\sqrt{2}$ rational or irrational?

Non-repeating decimal

Answer: irrational

3. Is $\sqrt{9}$ rational or irrational?

= 3

Answer: rational

4. Is 0.75 rational or irrational?

= $\frac{3}{4}$

Answer: rational

5. Is π rational or irrational?

Non-repeating forever

Answer: irrational

6. The product of a rational and an irrational number is ____? (Trainer echo - Jan 2026 Q2!)

Nonzero rational x irrational stays irrational

Answer: irrational

7. Is the sum of $\sqrt{3}$ and $\sqrt{5}$ rational or irrational? (Trainer echo - June 2025 Q14!)

Neither simplifies to a fraction

Answer: irrational

8. Is the sum of $\sqrt{3}$ and 5 rational or irrational? Explain. (Trainer echo - Aug 2025 Q26!)

Rational + irrational

Answer: irrational

9. Give an example showing irrational x irrational can be RATIONAL. ★ challenge

$\sqrt{2} \times \sqrt{2} = 2$

Answer: e.g., $\sqrt{2} * \sqrt{2} = 2$

10. True or false: every repeating decimal is irrational. Explain with 0.333... ★ challenge

$0.333... = \frac{1}{3}$, a fraction

Answer: False - repeating = rational