

Name _____

Date _____

Multiplying and Adding Rational and Irrational Numbers - Step-by-Step Lesson

Identify the sum or product as rational or irrational.

a. $\sqrt{5} + 8$ rational / irrational

b. $\sqrt{16} \times \sqrt{81}$ rational / irrational



**A rational number can be written as a ratio of two numbers.
Irrational numbers can't be written as a simple fraction.**

a. $\sqrt{5} = 2.2360 = \frac{?}{?}$ (no ratio) this is irrational and 8 is rational

When adding a rational number to an irrational, the sum is irrational

So the answer is irrational.

b. $\sqrt{16} = 4$ and $\sqrt{81} = 9$. Both are rational numbers. The product of two rational numbers is rational number.

$(4 \times 9) = \frac{36}{1}$ (ratio)

This is a rational value.

