Multiplying and Adding Rational and Irrational Numbers - Guided Lesson Explanation

Explanation#1

See what you have to calculate.

 $9 = \frac{9}{1}$ (rational) this is rational and 9 is a rational number.

.03 can be expressed in the form $\frac{a}{b}$ so it is a rational number

When adding rational numbers, the sum is also rational, so the answer is rational.

Explanation#2

 $\sqrt{6} = 2.4494 = \frac{?}{2}$ (irrational number)

and 11 is a rational number

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

Explanation#3

You should know what you have to calculate.

 $\sqrt{14} = 3.7416 = \frac{?}{2}$ is irrational number and 8 is a rational number.

When multiplying a rational number and an irrational number. The product is irrational, so the answer is irrational.