

Exercise 55

According to the U.S. Mint, the diameter of a quarter is 0.955 inches. The circumference of the quarter would be the diameter multiplied by π . Is the circumference of a quarter a whole number, a rational number, or an irrational number?

Solution

The circumference is the diameter multiplied by π .

$$C = \pi d = \pi \times 0.955 = 0.955\pi$$

The circumference is an irrational number because π cannot be written as a ratio of two integers.