a Traditional LLM **Text**-in, **text**-out

A bathroom has 10 6-in tiles along its width and 20 6-in tiles long its length.

Q: What is the square footage of the bathroom?

LLM

Step 1: Calculate the total width of the bathroom in inches. We know there are 10 tiles along the width, and each tile is 6 inches. Width in inches = Number of tiles × Tile length = 10 × 6 = 60 inches

Step 2: Convert the width from inches to feet. To convert inches to feet, we divide by 12 (since 1 foot = 12 inches). Width in feet = 60 inches ÷ 12 = 5 feet

Step 3: Calculate the total length of the bathroom in inches…

We know there are 20 tiles along the length, and each tile is 6 inches. Length in inches = Number of tiles × Tile length = 20 × 6 = 120 inches

Step 4: Convert the length from inches to feet. To convert inches to feet, we divide by 12. Length in feet = 120 inches ÷ 12 = 10 feet.

Step 5: Calculate the square footage of the bathroom. The area is calculated by multiplying the length by the width…

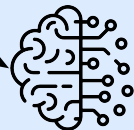❌ high cognitive load
❌ error-prone
❌ slow verification

User verifying answers

Q1: Is the answer correct?
Q2: Which step is wrong?

b Our LLM: **Text**-in, **application**-out

LLM

Question
A bathroom has 10 6 inch tiles along its width and 20 6 inch tiles along its length. What is the square footage of the bathroom?

Summary
Width tiles: 10 tiles of 6 inches each
Length tiles: 20 tiles of 6 inches each
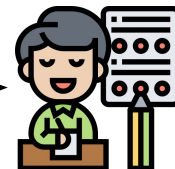**Goal:**
The square footage of the bathroom.

▶ Play   ■ Stop   ↳ Previous Step   ⟳ Next Step

Step-by-Step Explanation

Calculate the total width of the bathroom in inches: number of tiles × tile length = 10 * 6 = 60 inches   1

Convert the width from inches to feet: width in inches ÷ 12 = 60 / 12 = 5 feet   2

Calculate the total length of the bathroom in inches: number of tiles × tile length = 20 * 6 = 120 inches   3

Convert the length from inches to feet: length in inches ÷ 12 = 120 / 12 = 10 feet   4

Calculate the square footage of the bathroom: length × width = 10 * 5 = 50 sq feet   5

Final Answer: 50

✅ low cognitive load
✅ more accurate
✅ faster verification

generated **interactive** application reveals reasoning steps one by one