A)

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

B)

1. Calculate the total width of the bathroom in inches: number of tiles × tile length = 10 * 6 = 60 inches
2. Convert the width from inches to feet: width in inches ÷ 12 = 60 / 12 = 5 feet
3. Calculate the total length of the bathroom in inches: number of tiles × tile length = 20 * 6 = 120 inches
4. Convert the length from inches to feet: length in inches ÷ 12 = 120 / 12 = 10 feet
5. Calculate the square footage of the bathroom: length × width = 10 * 5 = 50 sq feet

Python Solution

C)

```python
# Calculate the total width of the bathroom in inches
width_inches = 10 * 6
# Convert the width from inches to feet
width_feet = width_inches / 12
# Calculate the total length of the bathroom in inches
length_inches = 20 * 6
# Convert the length from inches to feet
length_feet = length_inches / 12
# Calculate the square footage of the bathroom
bathroom_area = length_feet * width_feet
```

D)