

**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.

$$\text{Width in inches} = \text{Number of tiles} \times \text{Tile length} = 10 \times 6 = 60 \text{ inches}$$

**Step 2:** Convert the width from inches to feet.

To convert inches to feet, we divide by 12 (since 1 foot = 12 inches).

$$\text{Width in feet} = 60 \text{ inches} \div 12 = 5 \text{ feet}$$

**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.

$$\text{Length in inches} = \text{Number of tiles} \times \text{Tile length} = 20 \times 6 = 120 \text{ inches}$$

A)

Calculate the total width of the bathroom in inches: number of tiles  $\times$  tile length =  $10 * 6 = 60$  inches

1

Convert the width from inches to feet: width in inches  $\div 12 = 60 / 12 = 5$  feet

2

Calculate the total length of the bathroom in inches: number of tiles  $\times$  tile length =  $20 * 6 = 120$  inches

3

Convert the length from inches to feet: length in inches  $\div 12 = 120 / 12 = 10$  feet

4

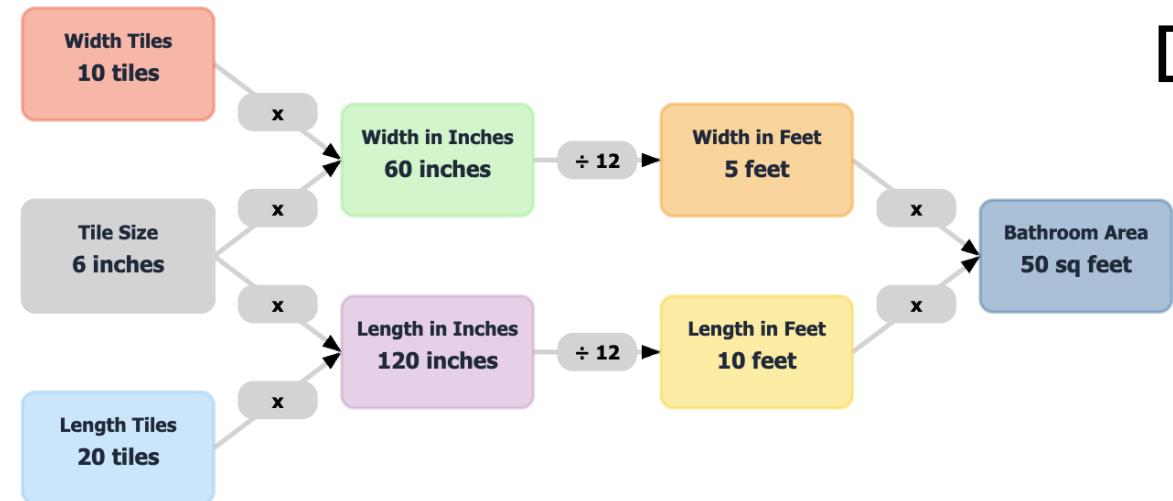
Calculate the square footage of the bathroom: length  $\times$  width =  $10 * 5 = 50$  sq feet

5

## Python Solution

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

C)



B)