Floor Plans and Scale

Answer Key

Name:_____

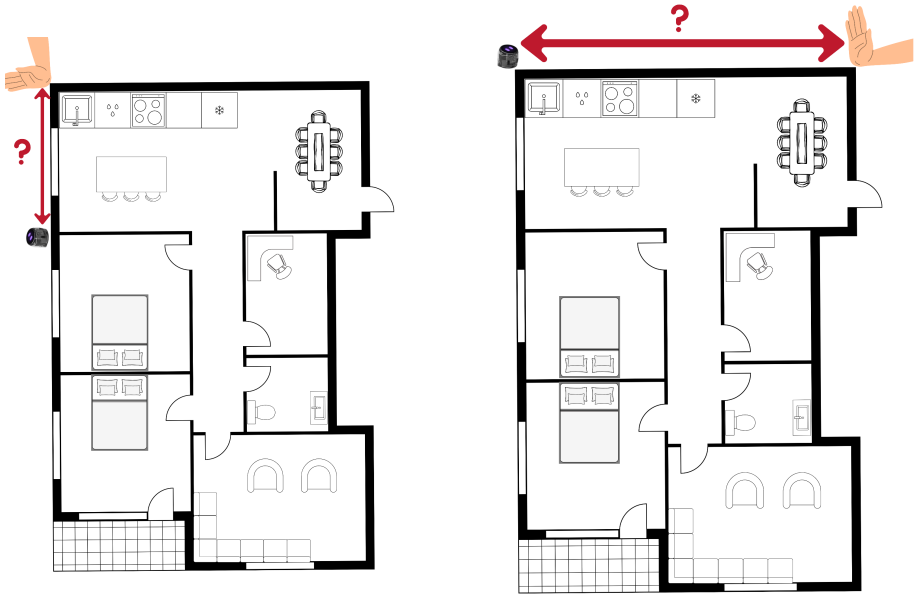
Date:_____

Vocabulary

Floor plan - a diagram used to show the layout of a building, usually drawn to scale
Dimension - a measure of magnitude such as height or length
Scale or To Scale - Each drawn dimension or measurement has the same proportion to the original dimension

Activity 1

Using the Ari Distance application, measure the length and the width of each room on the floor plan using the technique shown below. Measure only the parts of the floor plan noted with a dimension line.



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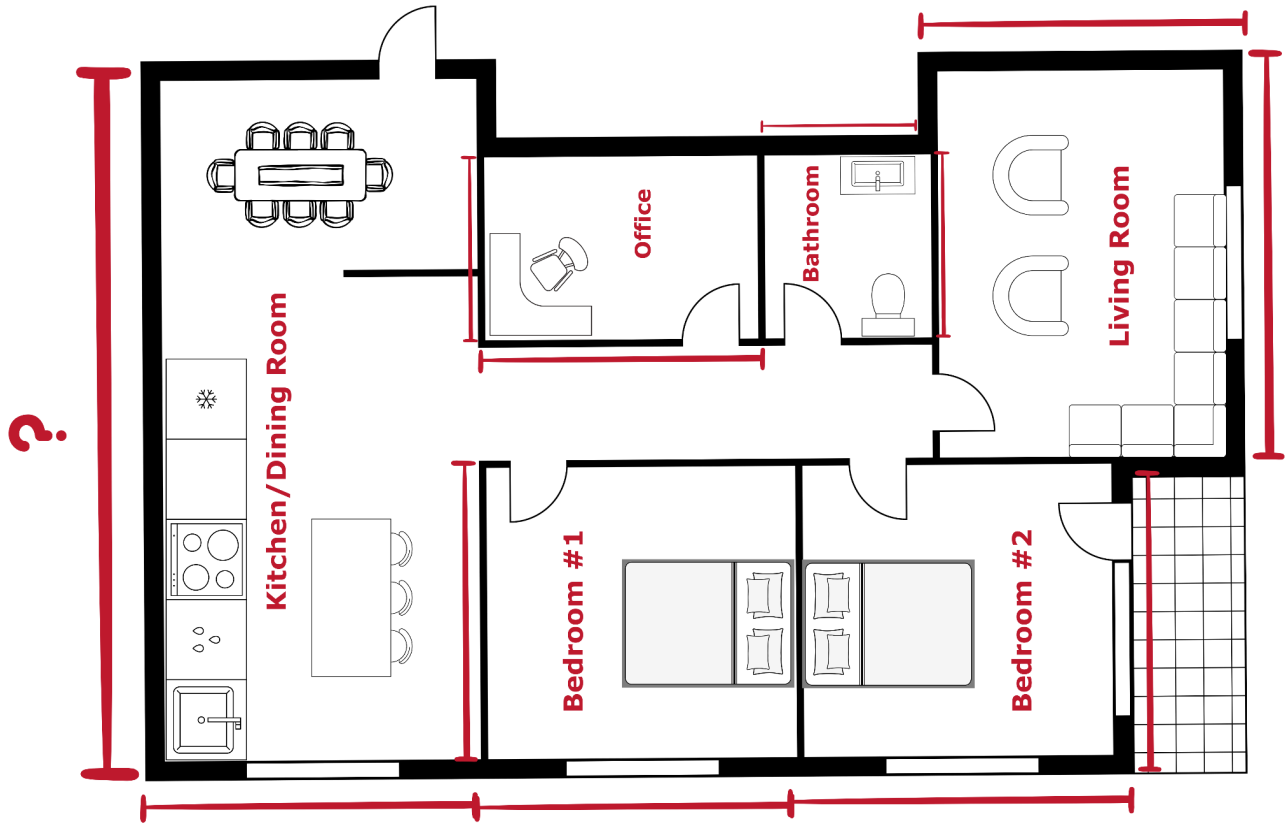

Floor Plan To Be Used for Measurements

1 Provide the dimensions for the following:

Room	Length (inches)	Width (inches)
Kitchen/Dining Room	3.0 inches	1.1 inches
Bedroom #1	0.8 inches	0.9 inches
Bedroom #2	1.2 inches	0.9 inches
Living Room	1.5 inches	1.0 inches
Office	0.4 inches	1.0 inches
Bathroom	0.4 inches	0.4 inches

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Activity 2

We are going to calculate the actual, real world size of each room on the floor plan. You can assume that the floor plan is 1/100th of the size of the rooms in real life.

Example Calculations

Example Measurements Used

Room	Dimension #1 (inches)	Dimension #2
Office	2.1 inches	1.3 inches

Room	Actual Dimension #1 (inches)	Actual Dimension #2
Office	2.1 x 100 = 210 inches	1.3 x 100 = 130 inches

1 Calculate the actual dimensions of each room, in inches.

Room	Actual Dimension #1 (inches)	Actual Dimension #2 (inches)
Kitchen/Dining Room	300 inches	110 inches
Bedroom #1	80 inches	90 inches
Bedroom #2	120 inches	90 inches
Living Room	150 inches	100 inches
Office	40 inches	100 inches
Bathroom	40 inches	40 inches

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Exit Ticket

Please respond to the following prompts.

1. Question 1: How were you able to calculate the actual dimensions of each room on the floor plan? I took each measured dimension and multiplied it by 100 to calculate a value that is 100 times larger than the measured length.

2. Question 2: What kinds of differently shaped rooms on a floor plan would make it more challenging to read and calculate room sizes? If a room is not perfectly rectangular or is circular or a different abnormal shape, we would have to measure each of the side lengths and then scale them up by 100.