## Spanish House Project: Math

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NOTE: Original square footage of the house: 600 sq. ft.
House is a square

## Finding Length of Each Wall In Model

1) $600^{\prime} \div 2=300^{\prime}$

Perimeter of the model house $=100 "$
2) $300^{\prime} \div 3=100^{\prime}$

Length of each wall: 25 "
3) $100^{\prime} \div 2=50^{\prime}$
4) $50^{\prime} \times 12^{\prime \prime}=600^{\prime \prime}$
5) $600^{\prime \prime} \div 2=300^{\prime \prime}$
6) $300^{\prime \prime} \div 3=100^{\prime \prime}$
7) 100 " $\div 2=50$ "
8) $50 " \div 4=12.5^{\prime \prime}$
9) $12.5^{\prime \prime} \times 2=25^{\prime \prime}$
10) 50 " $\mathrm{X} 2=100$ "

## Finding Square Footage of Model

Area Formula: Base X Height = Area

1) $25^{\prime \prime} \times 25^{\prime \prime}=625^{\prime \prime}$ in. sq.

Square footage of the model: 52.083333 ft . sq.
2) $625 \mathrm{in} . \mathrm{sq} \div 12=52.08333^{\prime}$

Finding Scale:

1) $600^{\prime} \times 12^{\prime \prime}=7200^{\prime \prime}$

Each wall in real life: 1800"
2) 7200 " $\div 4=1800^{\prime \prime}$

Scale: 1 inch = 6 feet
3) $1800^{\prime \prime} \div 25^{\prime \prime}=72^{\prime \prime}$

Finding Area of Rooms; Kitchen, Bathroom, Bedroom, and Office
$8.3^{\prime \prime} \times 8.3^{\prime \prime}=68.89^{\prime \prime}$

## Finding Area of The Living Room

1) $8.3^{\prime \prime} \times 8.3^{\prime \prime}=68.89^{\prime \prime}$
2) $68.89 " X 5^{\prime \prime}=344.45^{\prime \prime}$

The Living Room consists of 5 Kitchen/Office/Bathroom/Bedroom sized rooms
Finding Area Of The Whole House

1) $8.3^{\prime \prime} \times 8.3^{\prime \prime}=68.89^{\prime \prime}$
2) 68.89 " $X 5=344.45^{\prime \prime}$
3) $344.45+344.45=688.9$ "

Kitchen/Office/Bathroom/Bedroom all same size
Living room $=344.45$ "

