**Math Scavenger Hunt w/ Pythagorean Theorem**

**The Staircase Problem**

*Go into the hallway of the school and find a staircase. Measure the height and length of each step. DO NOT MEASURE THE DIAGONAL*

*Suppose you were tasked with turning the staircase into a ramp for moving purposes. If you were going to lay a board over the stairs to make the ramp, then how long does the ramp need to be? Give the exact distance!*

**Tools Needed**

*Ruler or Tape Measure, Camera (if needed) & Something to Record Measurements*

**Show your picture & work below:**

**Explanation of How you Did This**

**Follow Up**

*You have determined the length of the ramp, now how about the total area of the board needed. How much would it cost if the wood for the ramp sells for $4.99 per square foot?*

**Laying a Foundation**

*Suppose you were in charge of a construction site and you were told to outline a rectangular foundation for a house. To practice you decide to make a smaller version using household supplies.*

*Using the supplies listed below and your knowledge of Pythagorean Theorem to create this rectangular foundation using the strings.*

*(Mr. Kumor will give you the dimension for each house)*

**Supplies**

String, Tape, Scissors, Tape Measures, Recording Tool, Writing Utencil

**Work Space (if needed)**

**Length of the Diagonals of Your Foundation**

**Explanation of How you Did This**

**Follow Up**

*Suppose the foundation you just created is a 1:25 foot scale. What are the actual dimensions of the house? Also, if it would cost $16,000 to dig a foundation for a 1,800 square foot house, then how much would this one cost?*

**\*Finished with These Activities & The Tent Problem Move on to Khan Academy Quizzes in the Pythag. Thrm. Mod.**