**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 620 Scale Drawing Project**

 **30 Points DUE THURSDAY 6/8**

Use your mathematical knowledge to create a floor plan.

* You may use the site: <http://www.homestyler.come/designer> to lay out your floor plan.

**Step 1:** Draw a scale plan for a house with a ratio 1 inch = 4 feet.

* ***Requirements:***

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 House must be exactly 1500 square feet (Remember to find the

 area of a rectangle, multiply length by width).

 Includes a kitchen

 Includes a living space

 Includes at least one bedroom

 Includes at least one bathroom

 Includes hallways, closets, windows, and doorways

 Drawn neatly on graph paper using a ruler

**Step 2:** Determine the dimensions of each room

* ***Requirements:***

 Dimensions of each room are expressed as length x width (in feet)

 Includes the area of each room in square feet

* **Be careful** if your rooms are not rectangular, we will need to use special formulas. Ask Miss S or Ms. Dolan for guidance if you design a room that is not rectangular\*

**Step 3:** Pick one room to paint.

One gallon of paint covers between 250 and 400 square feet.

* ***Requirements:***

 Determine the surface area of the walls

* Subtract area of windows and doorways

 Use calculated surface area to determine how much paint you will

 need.

* You may use the site http://www.glidden.com/Tools/PaintCalculator?wt.mc\_id=g15psnb&wt.tsrc=Paid%20Search&gclid=CPv0geb9wMwCFUEkhgod01oA5w to help you but you must show your calculations on a separate piece of paper.

We will work on the project in class on Monday 6/5, Wednesday 6/7, and Thursday 6/8. **The project is due on Monday 6/12.**

**You should turn in the following items:**

 Your scale drawing

 Done on graph paper

 Drawn neatly, using a ruler (ratio 1 inch = 4 feet see Step 1)

 Labeled with room titles (see Step 1)

 Labeled with dimensions in feet (see Step 2)

 Calculations of total square footage

 Area of each room labeled in squared feet (see Step 2)

 Include the sum of the area of each room to reach 1500 square feet

 Calculations of the cost to paint one room (see Step 3)

If you used the homestyler website, you may also print out a copy of your floor plan. **You must still include a scale drawing on graph paper of your floor plan.**

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