

**Core Engaging Necessary Thought-provoking Real Authentic Learning**

You are designing a four-story building that you will either convert into apartments or use as a business. Sketch and label your four-story building in the space to the right. To begin, include ONLY the support columns (corners), each floor, and a roof. Label each corner with letters "A" through "T".

1) Are points A and G collinear? Why or why not?

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2) Are points B, F, and G coplanar? Why or why not?

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3) What is the name of the plane containing the fourth floor? \_\_\_\_\_

4) Name a pair of opposite rays. \_\_\_\_\_

5) Name a pair of rays that are NOT opposite. \_\_\_\_\_

6) If the bottom of a column is represented by  $(0,0)$  and the top of the same column is represented by  $(0, 40)$ , what are the representations of the 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> floor points along the same column?

Second floor: \_\_\_\_\_ Third floor: \_\_\_\_\_ Fourth floor: \_\_\_\_\_

7) Name any parallel planes. \_\_\_\_\_

8) Name any parallel segments. \_\_\_\_\_

9) Name a pair of complementary angles. \_\_\_\_\_

10) Name a pair of supplementary angles. \_\_\_\_\_