

Tempo Spherical Activity #3

You will be given a ruler, protractor, and 1 to 8 triangular spherical wedges, architectural white board, glue and XACTO knife.

Your task will be to design a home using the triangular spherical wedges.

The number of partial spherical wedges used is up to you.

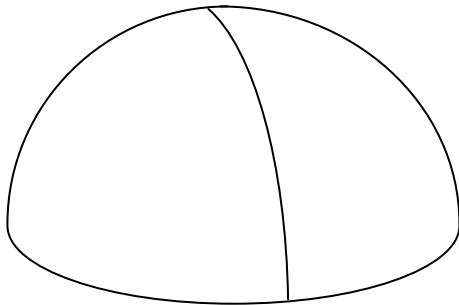
A scale model of the home will be created with a legend.

Draw a diagram of the home and label its dimensions.

The home will need to have at least 3 bedrooms, 2 baths, a kitchen, and garage.

Find the square footage of each room and the total square footage of the home.

Justify your design with mathematical and economic arguments.



Links:

1. Tempo Gloss Globe - <http--www.tempoglossglobe>
2. Wikipedia, the free Encyclopedia
 - a. [Sphere - Wikipedia, the free encyclopedia](#)
 - b. [Spherical wedge - Wikipedia, the free encyclopedia](#)
 - c. [Dome - Wikipedia, the free encyclopedia](#)
 - d. [Monolithic dome - Wikipedia, the free encyclopedia](#)
 - e. [List of celebrated domes - Wikipedia, the free encyclopedia](#)

California State Standards for Mathematical Reasoning

1.0 Students make decisions about how to approach problems:

1.1 Analyze problems by identifying relationships, distinguishing relevant from irrelevant information, identifying missing information, sequencing and prioritizing information, and observing patterns.

1.2 Formulate and justify mathematical conjectures based on a general description of the mathematical question or problem posed.

1.3 Determine when and how to break a problem into simpler parts.

2.0 Students use strategies, skills, and concepts in finding solutions:

2.1 Use estimation to verify the reasonableness of calculated results.

2.2 Apply strategies and results from simpler problems to more complex problems.

2.3 Estimate unknown quantities graphically and solve for them by using logical reasoning and arithmetic and algebraic techniques.

2.4 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

2.5 Express the solution clearly and logically by using the appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work.

2.7 Make precise calculations and check the validity of the results from the context of the problem.