

MathFLIX CHALLENGE

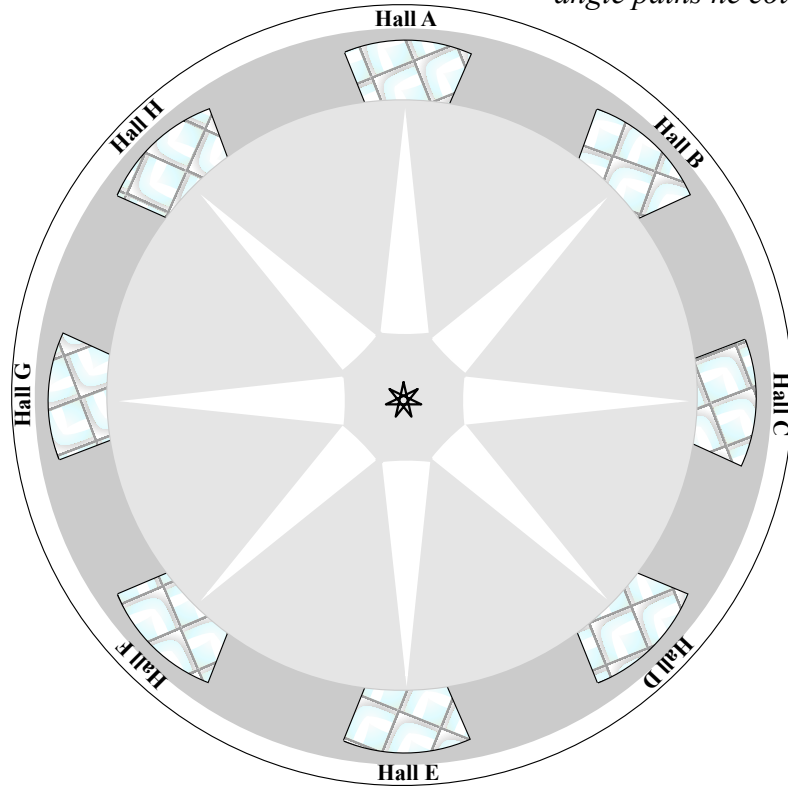
Geometry Exploration

Inspired by Sir Cumference and the Great Knight of Angleland

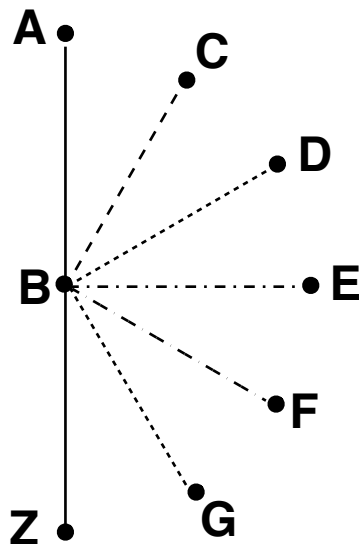
by Cindy Neuschwander

In the book, Radius, son of Sir Cumference and Lady Di of Ameter, sets out on an adventure to earn his knighthood. He travels through the village of steep angled rooftops and over the Mountains of Obtuse in search of King Lell. Using a treasured family heirloom, Radius discovers his success is measured in angles.

A castle Radius explored had hallways similar to those illustrated here. Use the table below to list the different angle paths he could take to visit all the halls.



| Right angles | Acute angles | Obtuse angles | Straight angles |
|----------------|----------------|----------------|-----------------|
| $\angle A * C$ | $\angle A * B$ | $\angle A * D$ | $\angle A * E$ |
| | $\angle B * D$ | $\angle B * E$ | |
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Study the figure to complete the table.

| Degree of Angle | Notation of Angle | Type of Angle |
|-----------------|-------------------|---------------|
| 30° | $\angle ABC$ | |
| 60° | \angle | acute |
| 90° | \angle | |
| | $\angle ABF$ | |
| 150° | \angle | |
| | $\angle ABZ$ | |