# MathFLIX Challenge 

## Geometry Exploration

Angle exploration inspired by Sir Cumference and the Great Knight of Angleland by Cindy Neuschwander
In thẹ 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 <br> angles | Acute <br> angles | Obtuse <br> angles | Straight <br> angles |
| :--- | :--- | :--- | :--- |
| $\angle \mathrm{A} \cdot \mathrm{C}$ | $\angle \mathrm{A} * \mathrm{~B}$ | $\angle \mathrm{~A} * \mathrm{D}$ | $\angle \mathrm{A} \mathrm{E}$ |
| $\angle \mathrm{B} * \mathrm{D}$ |  | $\angle \mathrm{B} * \mathrm{E}$ |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |



Study the figure
to complete the table.

| Degree <br> of Angle | Notation <br> of Angle | Type <br> of Angle |
| :---: | :---: | :---: |
| $\mathbf{3 0 ^ { \circ }}$ | $\angle \mathbf{A B C}$ |  |
| $60^{\circ}$ | $\angle$ | acute |
| $90^{\circ}$ | $\angle$ |  |
|  | $\angle \mathbf{A B F}$ |  |
| $150^{\circ}$ | $\angle$ |  |
|  | $\angle \mathbf{A B Z}$ |  |

