## Reflection and Mirrors

Names:

## Improving Your Image

## Lab Test

## Question:

What is the mathematical relationship between the number of images formed by a combination of two plane mirrors and the angle between the mirrors?

## Purpose:

To determine the mathematical equation that relates the number of images $(\mathbf{N})$ formed by a set of two plane mirrors to the angle $(\Theta)$ between the mirrors?
Data:

| Angle ( $\Theta$ ) | $\mathbf{N}$ |
| :---: | :---: |
| $180^{\circ}$ |  |
| $120^{\circ}$ |  |
| $90^{\circ}$ |  |
| $72^{\circ}$ |  |
| $60^{\circ}$ |  |
| $45^{\circ}$ |  |
| $40^{\circ}$ |  |
|  |  |
|  |  |
|  |  |
|  |  |

## Conclusion/Discussion:

Make a claim: state the mathematical equation that relates the number of images $(\mathbf{N})$ to the angle ( ) between the mirrors.
Provide Evidence / Reasoning: Discuss the evidence and reasoning that support the equation. Be thorough and convincing. (Use the back side of this sheet if necessary ... and its probably necessary.)

