Optical Device Maze

Goal

You will construct a “maze” for a laser beam that fits within a 17”x11” rectangle (two 8.5”x11” sheets). The maze will use reflections and refractions to direct a beam of light to a target. The team that scores the most points will win.

Requirements

- Minimum of 3 mirrors
- Minimum of 2 refractions
- Label each Device
- Sketch out on paper ahead of time:
    - Location and orientation of devices
    - Predicted path of light
    - Labeled angles
    - Normal lines (?)
- Have calculations of angles of incidence, angles of reflection, and angles of refraction on a separate sheet clearly labeled according to optical device.

Points

- Points scored by a singly refracted beam will be multiplied by two.
- Points scored by a doubly refracted beam will be multiplied by three.

Hints