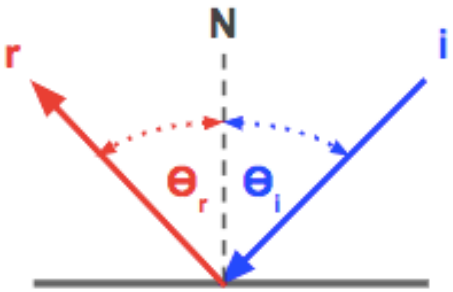
Law of Reflection
Lesson Notes

Learning Outcomes
- What is the law of reflection for light bouncing off of surfaces like mirrors?

The Language of Reflection
i Incident Ray (the light ray approaching the mirror)
r Reflected Ray (the light ray leaving the mirror)
N Normal Line (the line drawn perpendicular to the mirror at the point where the incident ray strikes)
Θ_i Angle of Incidence (angle between incident ray and the normal line)
Θ_r Angle of reflection (angle between reflected ray and the normal line)

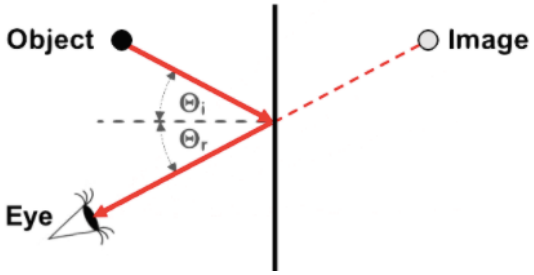


The Law of Reflection
When light reflects off a mirror, the angle between the incoming ray (incident ray) and the normal line is equal to the angle between the outgoing ray (reflected ray) and the normal line.

$$\Theta_i = \Theta_r$$

The Path of Light from Object to Mirror to Eye
To you view the image of an object in a mirror, you must look along a line of sight that extends backwards to the image location.

When you do, a ray of light from the object reflects off the mirror according to the law of reflection and travels to your eye along your line of sight.



The Geometry of Reflection
(Referring to the diagram at the right.)
If Angle A is 40°, then what is the value of angle ...

B?

C?

D?