

## Apparent and Absolute Magnitude

An Analogy:

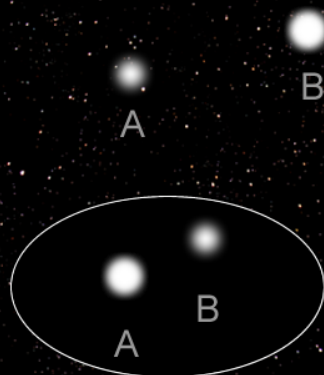


Cars A and B are identical. A's headlights appear brighter because it is closer.



Cars A and B are at the same distance. A's headlights appear brighter because they are intrinsically brighter.

An Example:



Observer sees

An observer sees two stars. Star A appears brighter than Star B because it is closer to her.

*Absolute magnitude* is the brightness a star would have at a distance of 10 parsecs. If stars A and B were both 10 parsecs away from the observer, Star B would appear brighter than star A.