



# $\pi$ IN THE SKY<sup>2</sup>

Pi is back in our skies, helping mathematical sleuths such as yourself solve stellar problems -- like this one: Discover how many images it takes to map a new world, the dwarf planet Ceres. Remember, pi leads the way.

Discover more “ $\pi$  in the sky” math problems at:  
[jpl.nasa.gov/edu/piday2015](http://jpl.nasa.gov/edu/piday2015)

## PIXEL PUZZLER

The Dawn spacecraft is orbiting Ceres -- a nearly spherical dwarf planet with an average radius of 475 kilometers -- in a perfectly circular polar orbit. While in orbit, Dawn will snap images of Ceres' surface to piece together a global map. From its lowest altitude orbit of 370 kilometers, Dawn's camera can see a patch of Ceres about 26 kilometers on a side.

**Assuming no overlap in the images, how many photographs would Dawn have to take to fully map the surface of Ceres?**

LEARN MORE ABOUT THE MISSION  
[dawn.jpl.nasa.gov](http://dawn.jpl.nasa.gov)

