Jet Propulsion Laboratory
California Institute of Technology

π IN THE SKY 3

Just like NASA's science and engineering pros, use pi to guide an orbiter on a mission to peer through the haze on Saturn's cloaked moon Titan.

Discover more "π in the sky" math problems at:
jpl.nasa.gov/edu/nasapidaychallenge

HAZY HALO

With its methane lakes and hazy atmosphere reminiscent of a primordial Earth, Saturn's moon Titan is an intriguing world – and one that scientists believe may harbor ingredients for life. Though spacecraft have studied Titan up close, and the Cassini mission sent a probe to the surface, much of the moon remains a mystery because a dense, 600-km thick atmosphere masks its rocky surface. To study Titan in more detail, scientists have proposed developing a spacecraft to map the surface of this mysterious moon.

Given Titan's radius of 2,575 km, what percentage of the moon's makeup by volume is atmospheric haze?

If scientists hope to create a global map of Titan, what is the surface area that a future spacecraft would need to map?

LEARN MORE ABOUT TITAN
solarsystem.nasa.gov/planets/titan