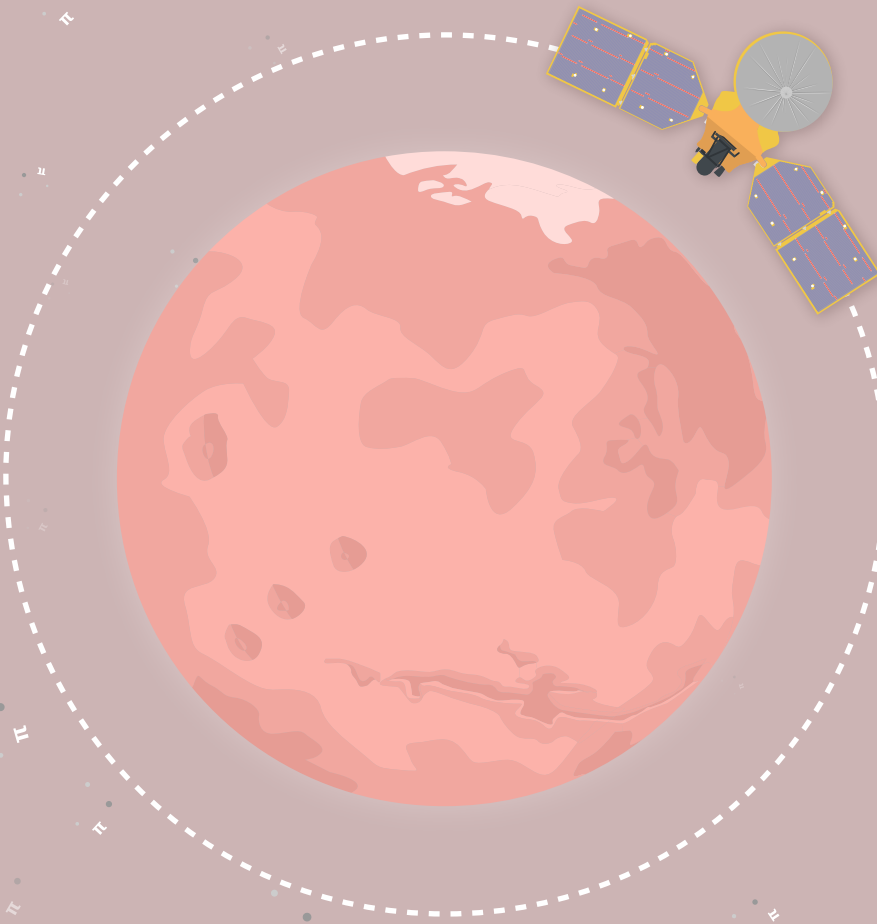


π IN THE SKY³

Just like NASA's science and engineering pros, use pi to locate the Mars Reconnaissance Orbiter as it explores the Red Planet from above.

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



ROUND RECON

The Mars Reconnaissance Orbiter (MRO) has been zipping around Mars since 2006, collecting data and images that have led to exciting discoveries about the Red Planet. So scientists can get the data and images they need from MRO, they must know when the spacecraft (traveling in a near-circular, near-polar orbit at an average speed of 3.42 km per second) will reach certain locations around Mars.

Given that Mars has a polar diameter of 6,752 km and MRO comes as close to the planet as 255 km at the south pole and 320 km at the north pole, how far does MRO travel in one orbit?**

How long does it take MRO to complete one orbit?

How many orbits does MRO complete in one Earth day?

*MRO's orbit is near enough to circular that the formulas for circles can be used.

LEARN MORE ABOUT THE ORBITER
mars.nasa.gov/mro