ROCCO'S

SECRET NOTES

25 bonus space facts that didn't fit in the book

CLASSIFIED

These didn't fit in the book.
The book is full. I checked.
Every one of these is true.
Don't tell anybody where
you got them.

R.





For readers of

Try Not to Think: Space
by N. E. Giggle

Read the book first.

Then come back here.

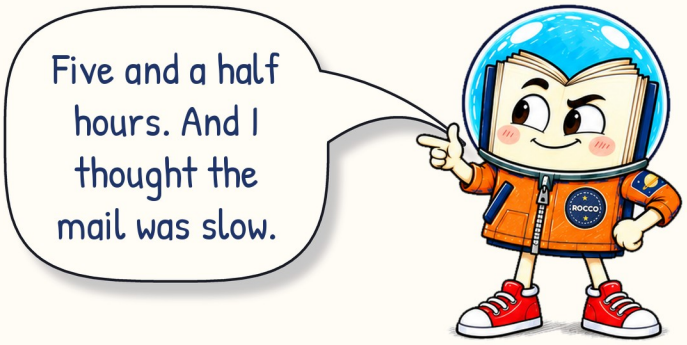
MORICHES BAY PRESS

1 Sunlight Delivery

Sunlight reaches Mercury in about 3 minutes. It needs about 13 minutes to reach Mars, 4 hours to reach Neptune and 5 and a half hours to reach Pluto.

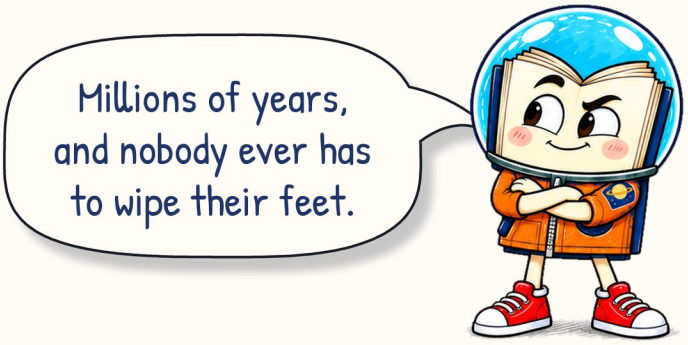
TRY IT

Sunlight leaving the Sun when you wake up at 7 reaches Pluto at about 12:30, around lunch.



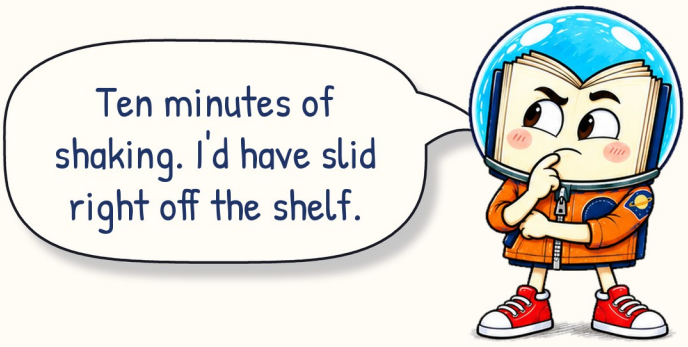
2 Footprints That Stay

The footprints astronauts left on the Moon will stay there for millions of years. There is no wind or rain on the Moon to wipe them away.



3 The Moon Rings Like a Bell

Some moonquakes keep shaking for more than 10 minutes. Most earthquakes fade in about half a minute. The dry, stiff Moon keeps ringing like a struck bell.



4 The Hidden Side

For all of human history, nobody had seen the far side of the Moon. Then in 1959, a spacecraft flew around it and took the first pictures.



5 Hot Day, Freezing Night

In full sunlight, the Moon's ground heats up to about 260 degrees Fahrenheit. At night it drops to about 280 degrees BELOW zero.

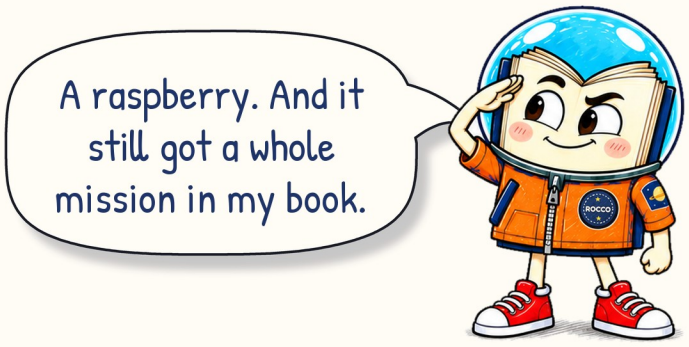
QUICK MATH
How many degrees apart are the Moon's day and night? Check the answer on the last page.



6 A Raspberry Planet

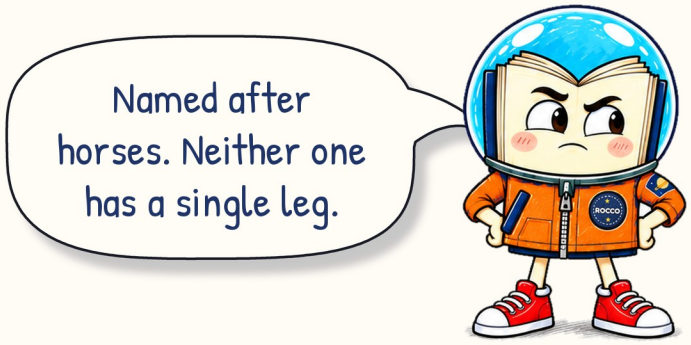
If Earth were the size of a nickel, Mars would be about as big as a raspberry.

TRY IT
Set a nickel next to a raspberry, or picture one. That's Earth and Mars.



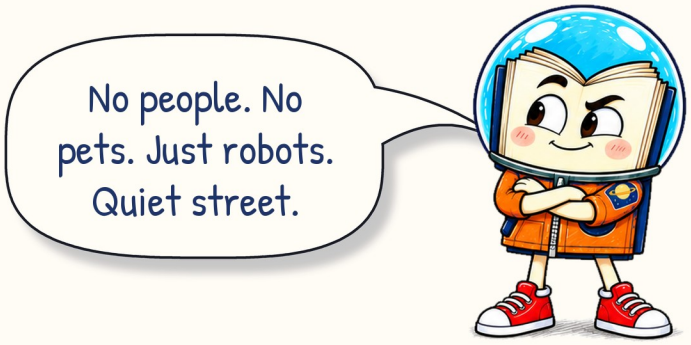
7 Moons With Horse Names

Mars has two small moons, Phobos and Deimos. They are named after the horses that pulled the chariot of the Greek god of war.



8 The Robot Planet

Mars is the only planet we know of where everybody living there is a robot. Rovers and landers roll around and study it for us.



9 Fewer Birthdays

One year on Mars lasts 687 Earth days. On Mars, you would only get a birthday about every two Earth years.

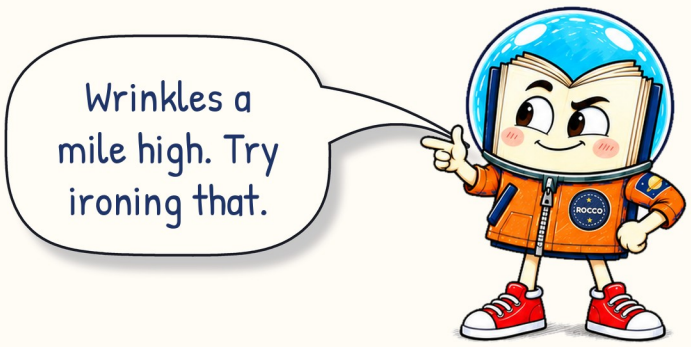
QUICK MATH

If you're 10 years old on Earth, about how old are you in Mars years?



10 The Wrinkly Planet

As Mercury's inside cooled over billions of years, the whole planet shrank. Its crust wrinkled into cliffs hundreds of miles long and up to a mile high.



11 The Brightest Planet

After the Moon, Venus is the brightest thing in our night sky. Venus has no moon of its own.

TRY IT
With a grown-up, look low in the west just after sunset. A very bright 'star' there is often Venus.



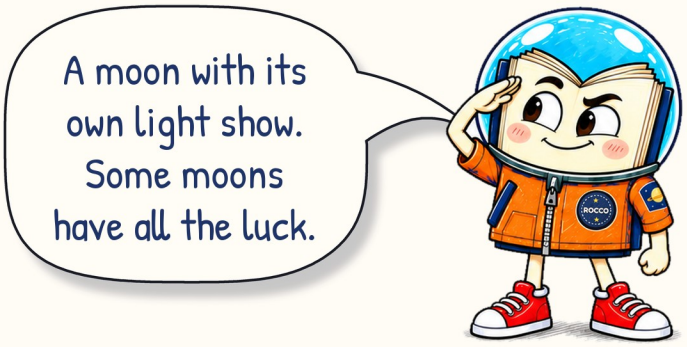
12 Earth's Plain Name

Every other planet in our solar system got its English name from Greek or Roman myths. Earth is the only one that didn't.



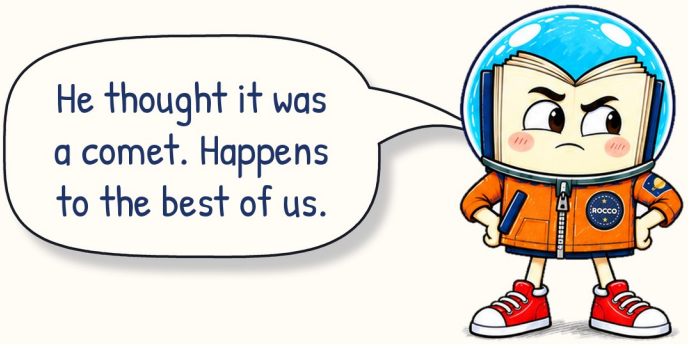
13 A Moon With a Light Show

Jupiter's moon Ganymede is the only moon known to have its own magnetic field. It makes glowing ribbons of light, called auroras, around the moon's top and bottom.



14 Mistaken for a Comet

In 1781, William Herschel spotted Uranus. At first he thought it was a comet or a star. It was the first planet ever found with a telescope.



15 Moons From Books

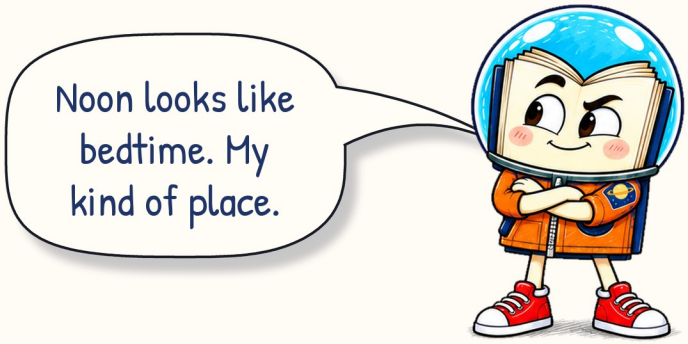
Most moons are named after characters from Greek and Roman myths. Uranus's moons are named after characters from Shakespeare's plays and Alexander Pope's poems.



16 Twilight at Noon

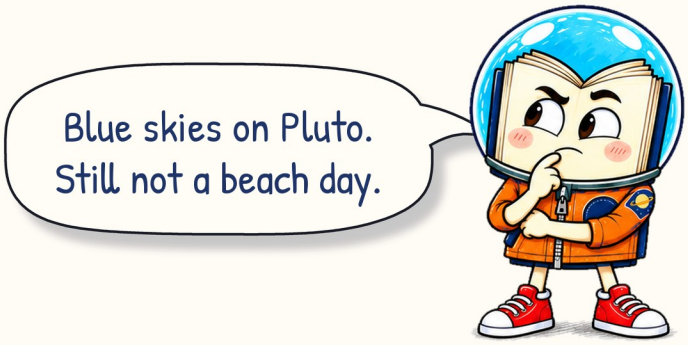
Neptune is so far from the Sun that noon there would look like dim twilight to us.

TRY IT
Tonight, right after the Sun goes down, look outside. That dim glow is about as bright as noon on Neptune.



17 Blue Skies on Pluto

In 2015, NASA's New Horizons spacecraft flew past Pluto and found something nobody expected: a hazy blue sky.



18 Mountains Made of Ice

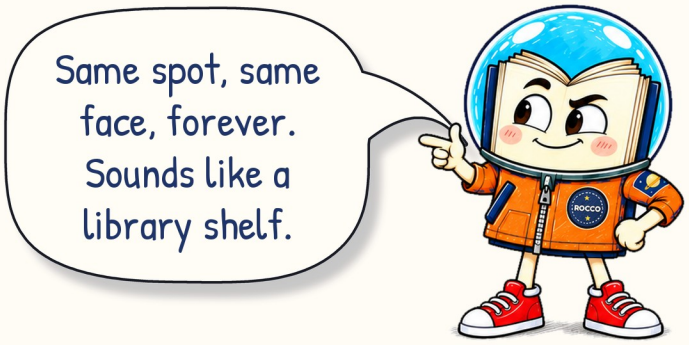
Some mountains on Pluto are giant blocks of frozen water. The tallest ones stand about 6,500 to 9,800 feet high.



19 Face to Face

Pluto's moon Charon always shows Pluto the same side. It also hangs over the same spot in Pluto's sky and never moves.

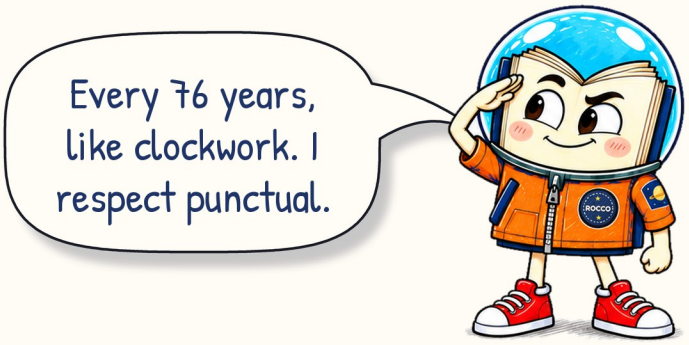
PICTURE IT
Picture standing on the far side of Pluto. Charon never rises there. You'd never see it at all.



20 Halley's Comet

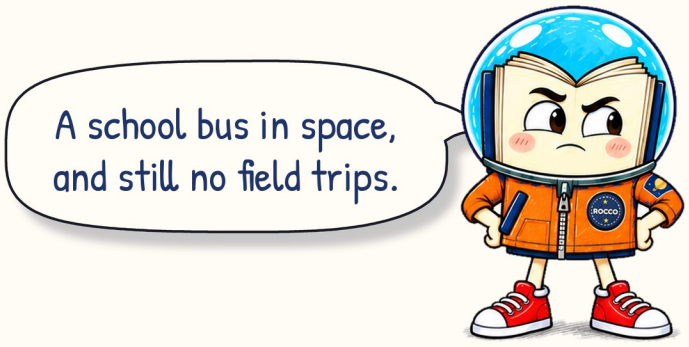
Halley's Comet swings past Earth about every 76 years. It was last seen in 1986, and it comes back in 2061.

TRY IT
How old will you be in 2061? Circle that year on a calendar someday.



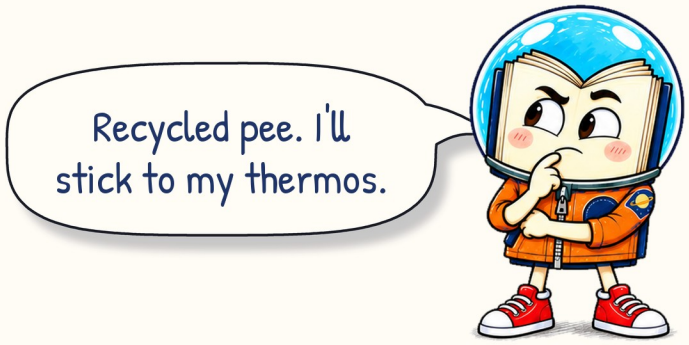
21 A School Bus in Space

The Hubble Space Telescope is about as long as a large school bus. It circles Earth about once every 95 minutes, and it has been up there since 1990.



22 Drink Up

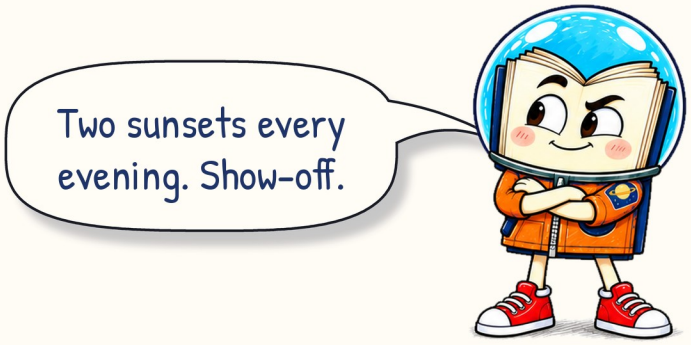
The Space Station recycles about 98 percent of its water. That includes the astronauts' sweat and even their pee, cleaned until it's safe to drink.



23 Two Suns

A planet called Kepler-16b goes around two stars at once. Anyone standing there would watch two sunsets. It's about 200 light-years away.

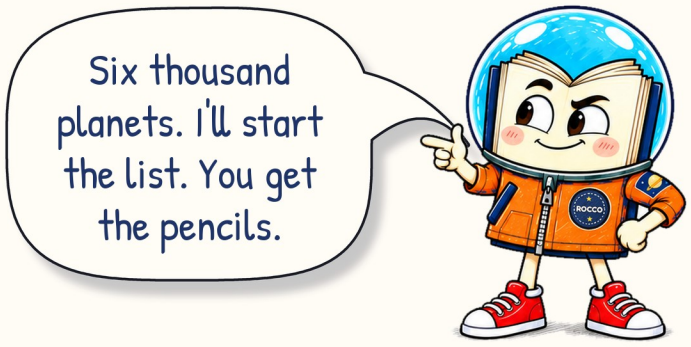
DRAW IT
Draw a sky with two suns setting. Make one orange and one red, like the real ones.



24 Six Thousand Worlds

Scientists have confirmed more than 6,000 planets going around other stars, and they keep finding more.

DRAW IT
Invent planet number 6,001. Give it a name and draw what its sky looks like.

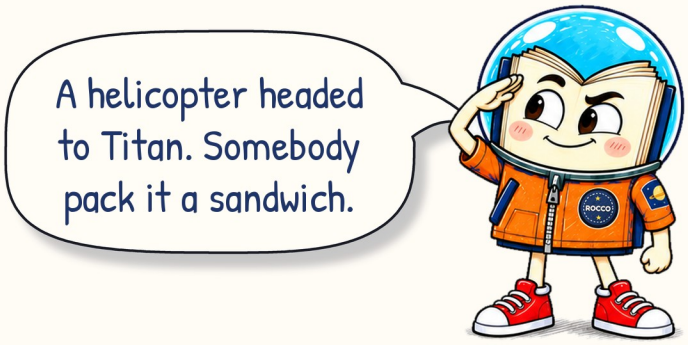


25 A Helicopter for Titan

NASA's Dragonfly is a flying robot built to explore Saturn's moon Titan. It is set to launch no earlier than July 2028 and reach Titan in late 2034.

DRAW IT

Draw the first thing you think Dragonfly will spot on Titan.



YOUR TURN: SECRET NOTE #26

Find a true space fact Rocco missed. Check it with a grown-up on a trusted site like NASA. Write it here, then try to stump somebody.

ANSWERS (no peeking)

#5 540 degrees. Up 260 from zero, plus 280 below it.

#9 About 5. A Mars year is almost two Earth years long.

BOOK 2 IS COMING

Somebody moved Rocco again. Watch for his next wrong shelf.

Ask a grown-up to sign up for a heads-up at morichesbaypress.com

Where Rocco Got His Facts

Every secret note was checked against these sources in October 2026. Science keeps changing, and some numbers may change too. That's part of the fun.

#1, 10 NASA Science, "Mercury: Facts," science.nasa.gov/mercury/facts

#1, 6, 7, 8, 9 NASA Science, "Mars: Facts," science.nasa.gov/mars/facts

#1, 16 NASA Science, "Neptune: Facts," science.nasa.gov/neptune/facts

#1, 18, 19 NASA Science, "Pluto: Facts," science.nasa.gov/dwarf-planets/pluto/facts

#2 NASA StarChild, "Apollo 11," starchild.gsfc.nasa.gov

#3 Universe Today, "Watch Out for Moonquakes" (Apollo seismometer data)

#4, 5 NASA Science, "Moon: Facts," science.nasa.gov/moon/facts

#11 NASA Science, "Venus: Facts," science.nasa.gov/venus/facts

#12 NASA Science, "Earth: Facts," science.nasa.gov/earth/facts

#13 NASA Science, "Ganymede," science.nasa.gov/jupiter/jupiter-moons/ganymede

#14, 15 NASA Science, "Uranus: Facts," science.nasa.gov/uranus/facts

#17 Universe Today, "Blue Skies and Red Surface Ice Found at Pluto," Oct 2015 (NASA New Horizons)

#20 NASA Science, "1P/Halley," science.nasa.gov/solar-system/comets/1p-halley

#21 NASA, "A NASA Refresher on Hubble Facts," science.nasa.gov

#22 Space.com, "NASA just recycled 98% of all astronaut pee and sweat on the ISS," June 2023

#23 Smithsonian Science, "Tatooine-like planet discovered" (Kepler-16b), Sept 2011

#24 Scientific American, "NASA Records More than 6,000 Exoplanets," Sept 2025

#25 NASA Science, "Dragonfly," science.nasa.gov/mission/dragonfly

Rocco's Secret Notes: a free bonus for readers of Try Not to Think: Space by N. E. Giggle.
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