



LAUNCH INTO MATH

Exercise 1: Ratios, Rates, and Units

The Artemis missions are all about a human-robotic return to the Moon. The journey will take teamwork, imagination, and — you guessed it — a lot of math! The exercise below explores the duration of the voyage ahead.

Feel free to use a calculator for these exercises... unless you really, really love long multiplication and division.

How long will it take to get to the Moon?

During the Artemis missions, the Orion spacecraft will travel about 250,000 miles (~402,350 kilometers) to the Moon in roughly 4 days.

Problem 1: Chances are, you don't have a rocket parked in your driveway, and you probably don't ride a space capsule to school. **So how many days would it take for a bus or a car to get to the Moon?** Use the measurements below in your solution. Round your answer to the nearest whole number.

Approximate distance the Orion spacecraft will travel to the Moon: 250,000 miles

Speed of the car/bus: 60 miles per hour

Hours in a day: 24

Problem 2: Maybe you missed the bus, or you couldn't hitch a ride. Or maybe you're just in the mood for a stroll. **How many days would it take to walk to the Moon? How many years?** Round the number of days to the nearest whole number and the number of years to the nearest tenth.

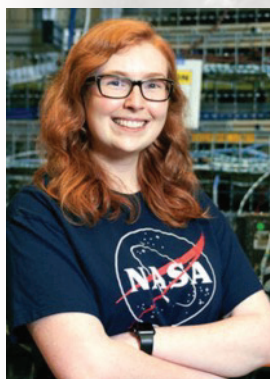
Approximate distance Orion will travel to the Moon: 250,000 miles

Average walking speed: 3 miles per hour

Hours in a day: 24

Days in a year: 365

There are no traffic lights in space. But there is a speed limit! The speed of light, which is 670,616,629 miles per hour, is the rate at which photons (particles of light) move.



Meet the Artemis team

Mathematicians and engineers at NASA are working hard to make sure the journey to the Moon is safe. Take Hannah Hopkins for example. Hannah is one of the software engineers of the Space Launch System, the rocket that will launch Orion to the Moon. Using a computer program, Hannah can simulate the launch and flight of the SLS in the event that something goes wrong. Read more about Hannah's work on the SLS [here](#).

Additional Resources

[What is Artemis?](#)

[Distance to the Moon Activity](#)

[How Far Away is the Moon](#)