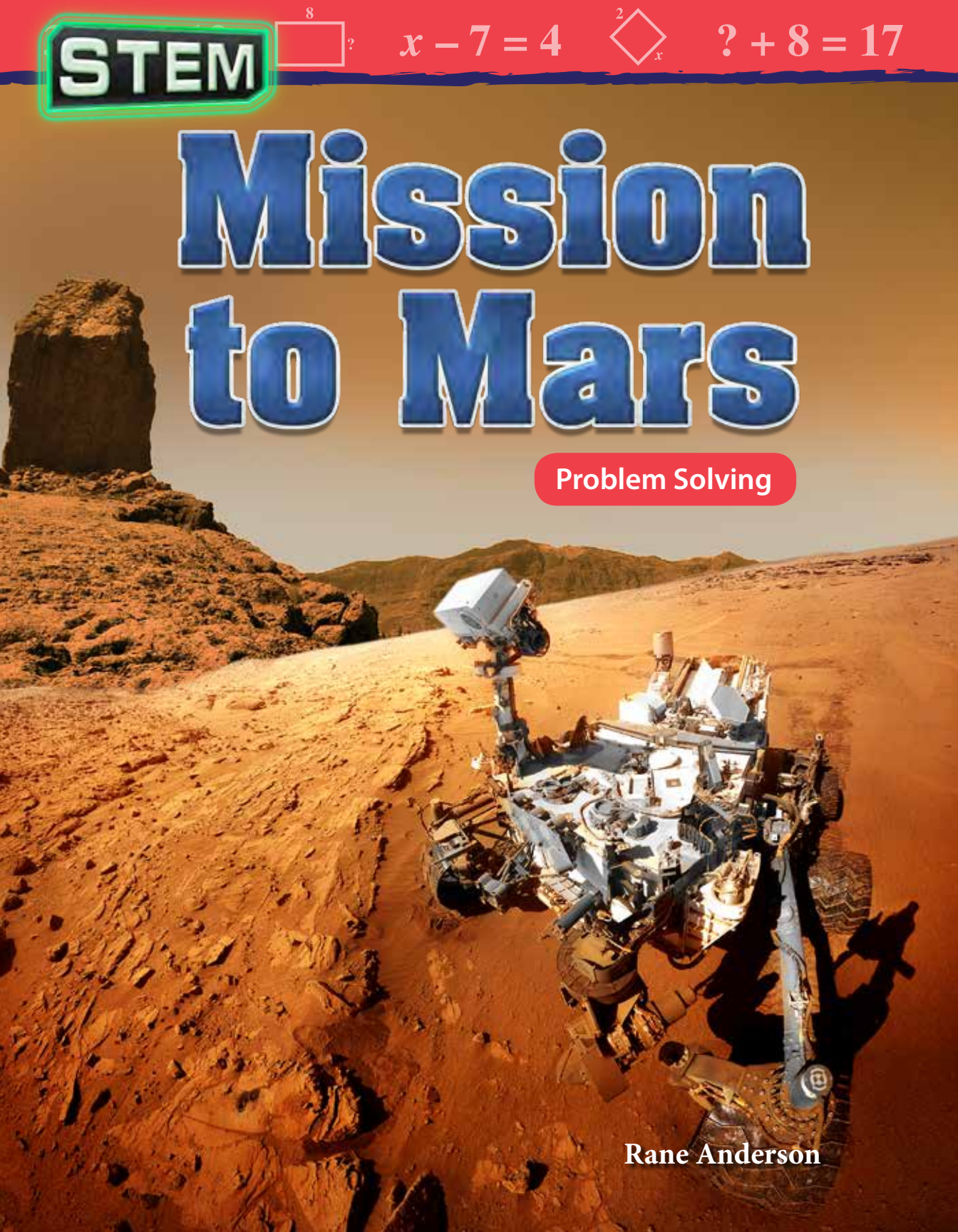
STEM

$x - 7 = 4$ $? + 8 = 17$

Mission to Mars

Problem Solving



Rane Anderson

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Destination: Mars

What will it take to safely send humans to Mars? And how will they survive? Scientists have asked these questions for years. They are still trying to answer them today. After all, Mars is a dangerous and deadly place for humans.

Its thin **atmosphere** lets in too much **radiation** from the sun. That could make humans sick. And the air pressure on Mars is way too low. That means that humans not wearing space suits outside would swell up like balloons and die. And those are just two things that could go wrong. Traveling to Mars is very dangerous.

So, why go? There is so much to learn! Scientists have already started planning for the trip. The National Aeronautics and Space Administration (NASA) wants to get humans to Mars by the 2030s. Can they do it?

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Astronaut Scott Kelly puts away fruit on the International Space Station.

Prepare for Takeoff

What is the best way to learn about space? By living there, of course! From March 2015 to March 2016, two **astronauts** did just that. Scott Kelly and Mikhail Kornienko lived on the **International Space Station** (ISS). They spent nearly a year tracking their health. They took blood and urine samples. They used an **ultrasound** machine to monitor their hearts and eyes.

Space is a harsh place. Astronauts are exposed to radiation. Their muscles get weaker. And their diets are limited. But, people believe time on the ISS is worth it. Data from the yearlong mission will help NASA. NASA plans to use the data collected to figure out how to take care of humans on a trip to Mars. NASA hopes to keep the Mars crew healthy in space for a long time. Since it is a long trip to Mars, this is crucial!

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Mikhail Kornienko

the International Space Station

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Exploring with Rovers

Humans have not yet made it to Mars. But, robots from Earth have. These missions have taught scientists a lot about the Red Planet. NASA **rovers** have been searching the surface of Mars. They are like robot scientists. Rovers gather data that helps NASA plan for future trips.

The youngest rover on Mars is Curiosity. It touched down on August 6, 2012. It has a lot of tools. The tools help it collect data about the rocks and soil. It even has an arm that can hold and move its tools. And it has a laser that can burn holes through rocks!

Curiosity can do lots of things. But it still needs someone to control it. Scientists must tell it what to do before it can perform a task.



The yellow path shows Curiosity's route on the surface of Mars.

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Let's Explore Math

If Curiosity can travel 200 meters per day, how many days will it take to travel 800 meters?

1. Write an equation and find the solution. Let d stand for the days traveled.
2. Imagine that one of Curiosity's wheels is broken and will not turn. It can now only travel 100 meters per day. How many days will it take for the rover to cover 800 meters? Write an equation and find the solution, using d to stand for days traveled.



Curiosity

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