PROLOGUE

A TALE THAT BEGINS
ON THE MOON
O ROMEÔ, ROMEÔ!

WHEREFORE ART THOU ROMEÔ?

THERE IS NO ROMEÔ!

WE DON'T HAVE ANYONE TO PLAY HIM.

WE DON'T HAVE MUCH TIME LEFT BEFORE THE ARTS FESTIVAL...

20 DAYS UNTIL THE FESTIVAL BEGINS!

WHAT ARE WE GOING TO DO?
Well, we'd better start thinking about how we can do this with just two people.

A whole play, with just two people?

We could try a comedy?

No!

I don't want to do a comedy. There's no romance in a comedy!

Romance, huh?

And I guess a musical is out of the question...

A Tale That Begins on the Moon
I've turned down all the offers to be on sports teams. I'm devoting myself to the stage...

But it seems that young men nowadays have no interest in cultural activities.

It's deplorable!

Uh, maybe a sports team would have been a better fit for you.

Anyway...

If we can't put on a performance at this arts festival....

The school is going to shut down the drama club.

20 days!

What's that?
Hi, Mr. Ishizuka!

I've brought a new student who wants to join the drama club!

Really?

Well, come on in!

Hello!

Whoa!

This is Gloria! She's an exchange student from the United States! She's just arrived from the airport.
Hey! We have a job to do! Argh!

I can't believe you're the only one who showed up!

Sensei?

Okay, fine. But what plays can we do with three people?

That's enough!

Gloria wanted to join the drama club because she is interested in Japanese culture.

Some people have all the luck...

She can read Japanese, right?

We haven't even decided what we're going to do for the arts festival, but I don't see how...
What do you think?

Oh, Wow! A kimono!

Well...

Tonight...

The moon...

Shall be blurred by my tears!

She's a real Japan lover, isn't she?

She really knows her manga, anime, and ancient literature.

Even most Japanophiles don't know the story of the Golden Demon!
KANICHI-SAN!

GROVEL. GROVEL!

NO! YOU MUSTN'T APPROACH!

KANICHI! KICK!

WAIT...

HOW ABOUT KAGUYA-HIME, FROM THE TALE OF THE BAMBOO CUTTER?

HUH?

ISN'T THAT STORY A LITTLE CHILDISH?

DON'T WORRY. I'LL ADAPT IT!

LET'S SEE...

...KAGUYA-HIME CAN BE A PRINCESS FROM A FARAWAY LAND!
DOES THAT MEAN I'LL GET TO PLAY KAGUYA-HIME?

WHAT DO YOU THINK, KANNA?

Okay! This will be Gloria's welcome party!

Thank you very much!

Welcome to the Kouki High School Drama Club, Gloria!

Okay already!

As you might expect, Mr. Ishizuka is the Japanese literature teacher!

You know, The Tale of the Bamboo Cutter is said to be the oldest literature in Japan.

Performing in this play will be a good opportunity for Gloria to study Japanese culture.

Let's review The Tale of the Bamboo Cutter.

Alright already!

A friendship seems to have been born during that Golden Demon rendition.

As you might expect, Mr. Ishizuka is the Japanese literature teacher!

Long, long ago, an elderly bamboo cutter was walking through a grove when he came upon a mysterious glowing stalk of bamboo. When he cut it open, he found a tiny girl inside—so tiny that she fit in the palm of his hand. Thinking that the gods had taken pity on him and his wife, an old childless couple, he decided to bring her home so that he and his wife could raise her as their own child.

From that day forward, whenever the old man cut down a stalk of bamboo, he found a piece of gold inside. Little by little, he became very wealthy. The girl grew up quickly, and in just three months she grew into a kind and loving daughter.

The girl, who was named Kaguya-hime, was so exceptionally beautiful that word of her beauty reached even the faraway capital. Many suitors called on her, but she wasn't interested in any of them.

However, five of these men were unable to ignore her beauty, and they asked for her hand in marriage.

As the condition for accepting a marriage proposal, Kaguya-hime asked each of her suitors to bring back a rare treasure that was impossible to find. Naturally, no one succeeded.
Kaguya-hime also caught the eye of the emperor—but he too was rejected. As the years passed, Kaguya-hime became more and more pensive whenever she gazed at the Moon, and as the autumnal full Moon approached, she would often burst into tears. The old bamboo cutter was very worried. When he asked her what was wrong, she replied, “I am not from this world! I come from the capital of the Moon, and I must return there when the Moon is full.”

Hearing of this, the emperor tried to capture Kaguya-hime for himself before she could return to the Moon. He surrounded her house with soldiers, but then soldiers from the Moon came down and defeated them.

Before leaving for the Moon, Kaguya-hime gave the old bamboo cutter a letter and an elixir of immortality to give to the Emperor. Then the Moon’s emissaries put the celestial maiden’s feathered robe on her shoulders, and all of her memories of Earth disappeared. She returned to the Moon, pulled upward by an invisible force.

The Emperor read her letter but decided that he didn’t want to live forever if he couldn’t see her again. So he ordered his men to burn the elixir on top of the highest mountain in the country—the one that was closest to the Moon.

From then on, the mountain where the elixir was burned became known as Mt. Fuji, from the Japanese word for immortality (fushi).
Now I see what kind of story this is!

It's a romantic science fiction story set in ancient times!!

Japan is so cool!

But Kaguya-Hime is actually a space alien who came from the Moon—it is science fiction.

When did that happen?

Yuck, it's embarrassing to be admired so much.

Well, it's not like she admires you...

There are many similar stories from other Asian countries, but...

...one in which someone comes to Earth from the Moon is unique to Japan.

This story also brings to mind the Otukimi Harvest Moon festival, doesn't it?
"HEE HEE HEE!"

WHAT ARE YOU DOING?!

SHE MUST HAVE LEARNED THIS FROM READING MANGA!

WHAT DOES OTSUKIMI MEAN?

HIT BY YAMANE

IT'S A FESTIVAL WHERE YOU EAT DUMPLINGS WHILE YOU LOOK AT THE MOON!

NO, NO!

THAT'S NOT ALL IT IS!

YOUNG MAN, YOU LEFT OUT ALL THE ROMANCE!

GRRRRR

LOOKING AT YOU IN THAT OUTFIT IS MAKING ME QUEASY.

THESE DAYS, ANYONE CAN FLY INTO SPACE ON A ROCKET.

KAGUYA-HIME COMING FROM THE MOON ISN'T SCIENCE FICTION ANYMORE!

THE FIRST TIME MANKIND SET FOOT ON THE SURFACE OF THE MOON WAS IN 1969! IT WAS THE CREW OF AMERICA'S APOLLO 11!

JAPAN SENT UP A SATellite THAT ORBITED THE MOON IN 2007!

IT'S NAME WAS KAGUYA!
SEE WHAT I MEAN? KAGUYA-HIME COMING FROM THE MOON JUST ISN'T THAT INTERESTING NOWADAYS.

WELL, WHAT IF SHE CAME FROM A MUCH MORE DISTANT PLACE?

YEAH!

THAT'S A GOOD IDEA!!

IT'LL BE AN OUTER-SPACE ROMANCE!!

REALLY, YOU THINK IT'S A GOOD IDEA? LONG AGO, I ACTUALLY THOUGHT ABOUT BECOMING A PLAYWRIGHT...

DON'T WORRY! YAMANE CAN WRITE A GOOD SCRIPT!

I'M LOOKING FORWARD TO IT!

HA HA HA

TICKLE

QUIT IT!

TICKLE

I GET IT, I GET IT! I'M JUST THE OLD, INVISIBLE TEACHER... SIGH

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... WHAT'S THE MATTER?

WELL, I JUST REALIZED THAT I DON'T KNOW VERY MUCH ABOUT THE UNIVERSE...

I DON'T KNOW MUCH ABOUT ANY PLACE OTHER THAN THE MOON...

NO PROBLEM!

HUH? BUT YOU CAN'T TEACH ME. YOU DON'T KNOW ANYTHING ABOUT SCIENCE EITHER!

HA HA HA HA! TRUST ME ON THIS ONE!!

YOU'RE TOO INSECURE! WHERE'S YOUR SELF-CONFIDENCE?

AHA!

THAT'S RIGHT!
WHAT ARE YOU TALKING ABOUT? IT'S NOT FAIR IF ONLY YOU TWO UNDERSTAND!

DON'T WORRY...

YOU'LL SEE SOON ENOUGH!

LET'S GO!
ON A JOURNEY THROUGH OUTER SPACE!

BUT FIRST I'M GOING HOME.

LET'S MEET LATER AT MY HOUSE!

HUSTLE, HUSTLE
How did ancient Japanese people know that the Moon was a celestial body like Earth?

*The Tale of the Bamboo Cutter* is an ancient Japanese fairy tale known to almost everyone in Japan. *The Tale of Genji*, written approximately 1,000 years ago, mentioned that the first fairy tale ever told was about an old bamboo cutter. However, it is rather surprising that the ancient Japanese believed that there was a city on the Moon where people lived.

For a long time, mankind believed that the universe was a small amount of space that wrapped around the world in which they lived. Maps from ancient times showed celestial bodies such as the Sun, Moon, and stars as tiny entities affixed to the surface of a shell that surrounded Earth. But in a universe like that, Kaguya-hime’s story doesn’t make sense. The people who created her story had a different view of the universe, in which the Moon was another world where people lived. Let’s look at some other views of the universe from ancient times.

**ANCIENT INDIA’S VIEW OF THE UNIVERSE**

In ancient India, people believed in a turtle that rode on top of an enormous coiled snake and that elephants stood on the turtle’s back to support a hemispherical Earth. The Sun was thought to appear and disappear as it revolved around the highest mountain, which stood at the center of the world. (This is Mt. Sumeru, which likely represented the Himalayas.) The Moon, which was the lamp belonging to the night watchman on this mountain, was thought to wax and wane depending on the direction the watchman was facing.

**ANCIENT EGYPT’S VIEW OF THE UNIVERSE**

In ancient Egypt, people believed that Nut, goddess of the sky, was supported by Shu, god of the air. Nut was said to be a symbol of the Nile River, and daytime and nighttime occurred when the Sun god Ra went back and forth across the river by boat every day. The Moon and stars were thought to be suspended from Nut’s body.
ANCIENT BABYLONIA’S VIEW OF THE UNIVERSE

The Babylonians thought that the Moon and stars were affixed to an enormous arched ceiling called the *celestial sphere*. The celestial sphere was supported by Mt. Ararat, and the Sun moved from east to west across its inner surface.

IN CHINA, WHERE ASTRONOMY WAS ORIGINALLY DEVELOPED

In contrast to these imaginary universes, people in ancient China and Greece tried to develop models of the universe scientifically. It was in China that astronomy was first developed.

In China, several cosmologies were conceived approximately 2,000 to 2,400 years ago, based on observations of the heavens. Two such cosmologies were called Gai Tian and Hun Tian.

*Gai Tian* described a dome-shaped sky, like a cap, over a hemispherical Earth. This was surrounded by water (the ocean) and rotated once a day from east to west around the north pole. The Sun also traced a circle in the sky, and the size of that circle varied with the seasons.

*Hun Tian*, whose name means the *entire sky*, expanded upon the concept of Gai Tian to try to more accurately represent the movements of the celestial bodies. The celestial sphere enveloped everything like an eggshell rather than just capping it like a dome, and the variation in the constellations according to the seasons was explained by the notion that the north pole shifted, rather than always remaining directly overhead.
IN ANCIENT GREECE, WHERE THE SIZE OF EARTH WAS CALCULATED

The ancient Greeks tried to explain the shape of the universe by using the logical thinking that permeates modern mathematics and physics. One of their greatest achievements was the discovery that Earth is a spherical body floating in space. The ancient Greeks were also the first to calculate the size of Earth.

Eratosthenes (who lived from about 276 BC to 195 BC) was a Greek scholar who was active in Egypt during the Hellenistic period. He calculated the size of Earth using the following method.

ERATOSTHENES’ CALCULATION METHOD

Eratosthenes discovered an account that said that a rod standing vertically at midday on the summer solstice in Syene (in the southern part of Egypt) did not cast a shadow. It seemed that this phenomenon could only occur south of the Tropic of Cancer, when the Sun appeared at the zenith (directly overhead).

The astonished scholar wondered what would happen in Alexandria, in the northern part of Egypt, and he immediately performed the experiment under the same conditions. The result was that the shadow of the rod remained visible. Eratosthenes concluded from this evidence that Earth is a sphere, a theory that was being discussed among some scholars at the time.

Eratosthenes also used his observations to try to measure the size of Earth. First, he measured the length of the rod’s shadow. He calculated that in Alexandria at the same time on the same day, the Sun’s rays arrived from a direction that was offset from the vertical by 7.2 degrees.

Next, he had a man walk from Alexandria to Syene and determined from the man’s stride that the distance was 5,000 stadia (an ancient unit of measurement), or
If Earth is round, the Moon must be round too

It is quite reasonable to suppose that scholars like Eratosthenes were not the only ones to realize that Earth was round. Certain phenomena—such as the fact that you cannot see beyond the horizon, or that the top of the sail always appears first when a ship is approaching—were obvious to people whose lives were closely related to the sea, and these occurrences are inconceivable on a flat surface.

Ancient Greece, where Eratosthenes lived, was a maritime nation bordered by the Ionian and Aegean Seas and located not far from the Mediterranean Sea. For that reason alone, many seafaring Greeks may have sensed that the world might be round.
On the other hand, when people with good eyesight observe light striking the Moon they should easily see that its surface is spherical rather than flat. For example, if you look at an enlarged photograph, there are clearly gradations at the outer edge and the waxing or waning border line. This wouldn't happen if the Moon were flat.

Now, let's return to the story of Kaguya-hime.

Japan is an island country, surrounded by the sea. This means that even in ancient times, some Japanese people probably recognized the existence of the curved horizon and from that concluded that Earth was round.

For example, when European missionaries traveled to Japan in the 16th century, they tried to introduce their scientific knowledge to the feudal lords they found there. One item they presented as a display of their knowledge was a globe. However, contrary to the expectations of the Europeans, most Japanese people did not show surprise at the suggestion that the world was a sphere.

The fact that Japanese people have gazed at and felt affection for the Moon since ancient times is also apparent from folklore, such as the story of the Moon Rabbit. And although Otsukimi (moon-viewing) festivals seem to have originated in China, the custom of appreciating the Moon is said to have existed in Japan since the Jōmon period (approximately 14,000 BC to 400 BC). Most likely, it would have been recognized then that the Moon was a sphere.

If Earth—like the Moon—is round and floats in space, then the idea that people should live on both Earth and the Moon is a natural conclusion. Therefore, it's not surprising that this idea appears in the tale of Kaguya-hime.
1

IS EARTH THE CENTER OF THE UNIVERSE?
A mysterious light appeared in the sky

A UFO?

Ouch!!

Pit pat, pit pat

Where are you going, Kanna?

Kanna! Are you okay?

Pit pat, pit pat
It's already 6:15!

Kanna is really late!

I wonder where she is?

It's okay if she got held up somewhere...

But I wish she'd just call and let us know. It's common courtesy!

You know?

Yamane is scary...

I just hope she's okay.

Gloria, are you staying with Kanna's family?

I'm so lucky to be able to do field work in an ordinary Japanese home. I've dreamt of this for so long!

Yeah!

She's carrying her luggage in a rickshaw?!

I wonder what she thinks it's going to be like...

She thinks Kanna's house is going to be an ordinary home? Yeah, right...
WELL, A JAPANOPHILE LIKE GLORIA WILL PROBABLY LOVE IT, BUT...

THAT REMINDS ME. WHAT EXACTLY WERE YOU TWO TALKING ABOUT EARLIER?

YOU'LL SEE SOON ENOUGH!

YOU'LL FIND OUT WHEN WE GET TO HER HOUSE.

OH, SHE'S HERE!

HEY!

KANNA! DO YOU HAVE ANY IDEA WHAT TIME IT IS?

YOU WAITED FOR ME!

YIKES!
WHAT THE HECK?

I GUESS NOW WE KNOW WHY YOU'RE LATE...

I SHOULDN'T BE SO HARD ON YOU!

KANNA! OMG!!!

WHAT...

WHAT HAPPENED?

CLOSE ENCOUNTERS

I GOT DISTRACTED BY THE UFO AND RAN INTO A POLE...

A LITTLE WHILE AGO, BEFORE IT GOT DARK...

...IT APPEARED LOW IN THE WESTERN SKY AND THEN JUST VANISHED!!

UM, THE UFO?

I SWEAR I SAW ONE!

BTW...

UFO STANDS FOR UNIDENTIFIED FLYING OBJECT.

ARE YOU SURE IT WASN'T THE MOON?

SO ANNOYED!

NO WAY! THE MOON IS IN THE EAST!

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Chapter 1

It's beautiful tonight...
Yeah... isn't it?

Ugh!!

We don't have time for stargazing!
Come on, we've got to get to your house!

Oh, right.
Wait for me...
Kanna's house is a temple!

A REAL JAPANESE TEMPLE?!

Whoa! Somebody's excited.

It's scary...

That's why we wanted to get here before it got too dark, but now...

Is Kitaro the spirit monster here? He may be...

AIEEE!!
IT'S...AN ALIEN!

THE UFO CAME BACK TO ABDUCT ME!

STAY AWAY, STAY AWAY!

HEY...

WHAT THE...?
Who you callin' an alien?

Kanta!

Don't scare us like that!

Well, I knew you were late coming home, so I waited up!

Anyway, Kanna...

I saw one...

...with my own eyes.

...what did you say about a UFO?

Evidence, evidence! That's all you ever talk about. It's so annoying!

Well, evidence is essential for scientific inquiry.

Is there any evidence?
Uh oh...

Are you Kanna's younger brother?

I'm her older brother. I'm just short.

Ha, ha, ha!

Kanta is majoring in astronomy at the university.

So we should have Kanta teach us about the universe, right?

Sure! I'll help you as much as I can.

Shut up! I see!
But there's no romance when you're studying astronomy in college.

There's no time for romance because I'm always studying!

Bam!

In a way, they're close friends...

Sibling relationships in Japanese culture are complicated.

Well, why don't we go talk to one of my professors tomorrow!

Fine! That's exactly what I want!

Is that okay with both of you?!

Um, yes...!
Chapter 1

Is Earth the Center of the Universe?

Does the Sun Revolve Around Earth?

I see...

Professor Sanuki, Astrophysics Department

So Miss Kanna thinks that the light she saw in the western sky last evening was a UFO, right?

It absolutely was a UFO! Flying saucers don't exist!

All right, calm down! Let's try to figure out what happened.
A: A SHINING LIGHT WAS VISIBLE AT A LOW POSITION IN THE WESTERN SKY AT APPROXIMATELY 5:30 IN THE EVENING.

STATEMENT A IS AN OBSERVATION, AND B IS AN INFECTION BASED ON IT.

B: THAT SHINING LIGHT IS A UFO BEING FLOWN BY ALIENS.

PERHAPS THAT INFECTION IS CORRECT, BUT IT ALSO MAY BE INCORRECT.

LET'S TRY TO VERIFY IT, THEN!

HE'S REALLY SWEET TO HELP US LIKE THIS.

FIRST, MISS KANNA...

CAN YOU DRAW A DIAGRAM SHOWING HOW THE SUN, EARTH, AND MOON ARE RELATED?

YES, SIR!
It looks like this!

SUN

EARTH

MOON

KANNA... I KNEW YOU WERE BAD AT SCIENCE, BUT...

KANNA! OMG!!!

WHAT A DOLT...

Hey, give me a break!

I know that this is different from what is taught...

And I know I can't confirm it myself.

But I can only believe what I can see with my own eyes.

This is just too much!
YOU'RE JUST SAYING THAT BECAUSE YOU HAVE NO SKILLS TO CHECK IT YOURSELF!

RIGHT, PROFESSOR?

WELL...

ACTUALLY, IT LOOKS THE SAME WAY TO ME!

THE SUN AND THE MOON APPEAR TO REVOLVE AROUND EARTH.

THAT'S RI—

HUH?!

WHAT A THING FOR AN ASTRONOMER TO SAY!

I CAN'T HELP IT IF I SEE IT LIKE THAT!

I THINK YOU'RE OVERSIMPLIFYING THIS...

WOW!

I CAN'T BELIEVE I'M TAKING YOUR SEMINAR!

Professor Sanuki...

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...we shouldn't believe everything we see, should we?

Yes, not everything is exactly as it seems to be...

That's why ancient people came to believe the geocentric model.*

* A model of our planetary system with Earth at its center, like the one Kanna drew, is called geocentric.

If we consider ourselves to be at the center of everything, then it looks to us like the Sun and the Moon revolve around us.

As a result, ancient people thought of the universe like this...

If we just considered the motions of the heavenly bodies that are visible to the naked eye, this diagram would explain the universe.

See! I'm right!

But if this is right, then why was the geocentric model discredited?

Kanna, be quiet!
Before we get into that...

Kanta, which do you think is older— the geocentric model or the heliocentric model?*

It's got to be the geocentric model!

In the 16th century, Copernicus pointed out problems in the geocentric theory, which people had believed in since before the Christian era...

Copernicus (1473–1543), Astronomer, born in Poland, who was also a priest and a doctor...

...so naturally, the geocentric model is older than the heliocentric model.

I'm not sure that's completely correct...

Although the geocentric model was proposed by either Aristotle or Ptolemy of ancient Greece...

Aristotle (about 384 BC–322 BC), an ancient Greek philosopher, who was also an expert in many fields of the natural sciences such as astronomy, meteorology, zoology, and botany.

You didn't know that? Are you really an astronomy major?

* A heliocentric model of our planetary system has the sun at its center.
A HELIOCENTRIC MODEL WAS PROPOSED 2,300 YEARS AGO

The Greek scholar Aristarchus, who was born in the third century BC (the era after Aristotle), first tried to explain the universe with a geocentric theory.

Aristarchus (about 310–230 BC)
Ancient Greek astronomer and mathematician

However, as he continued to make observations, this theory seemed to have one problem...

He noticed that the waxing and waning of the Moon occurred because of the angle of the light from the Sun.

What do you mean?

For example, when there is a half moon, the Sun is shining from a location that is approximately at a right angle to the Moon, relative to Earth.

Like this!!!

Stop it!

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As long as we know this angle, we can determine the exact relationship between the distances from Earth to the Moon and the Sun.

Clever!

Gloria...that was amazing!

What's going on?

Thanks! I'm pretty good at math.

Aristarchus had the same idea, and he determined this angle to be 87°.

It is actually 89.85°, but he did the best he could do with the observational technology of those times.
Okay, but how are the positions of the Moon and Sun related to...

...a geocentric or heliocentric model?

Let's take it one step at a time...

How different in size do the Sun and Moon appear to be?

They look about the same.

You can pretty much hide each of them with one finger.

That's right. They both appear to be approximately the same size, from our perspective.

Based on this fact, let's make our diagram a bit more accurate.

You mean redraw the diagram using a protractor?

Yes, that's right.
A Heliocentric Model Was Proposed 2,300 Years Ago

Let's see, this is Earth... Since the Sun is offset from the Moon by 90° with an interior angle of 87°...

And here is the Moon.

Squeeeak

Huh?

Ack, there's not enough paper

Will two sheets be enough?

The lines are still almost parallel!

Yamane! More paper!

What's the matter?

I always see things through, no matter what may stand in my way!

I'll plot a course to the sun by drawing this line at the speed of light!!

Fwoosh!

I encountered a staircase along the way, so I didn't make it all the way to the sun. Mission aborted, sir.

Well, now you should clean up the marker you drew everywhere.

But you can use trigonometric functions to obtain a ratio of the lengths of the triangle's sides, instead of drawing a huge diagram.

What?

You made a great effort...

Quit it!

Quit it!

Reporting in, sir!

Shut up!

Bump bump crash!

DID YOU HURT YOUR HEAD?
Using the 87° measure obtained by Aristarchus, we can determine that the distance to the sun is approximately 19 times farther than the distance to the moon.*

When we use the actual 89.85° measurement, the distance is approximately 390 times farther.

It looks more like a straight line than a triangle!

*The tangent function describes the ratio of opposite-to-adjacent sides of a right triangle (\(\tan 87° = 19\)).

Even though the moon and the sun appear to be the same size from Earth, the fact that they are this far apart means that...

...their actual sizes are completely different.

Even with Aristarchus’s faulty calculation, the diameter of the sun must be 19 times that of the moon. In reality, there is a much larger difference.
Aristarchus also noticed that a lunar eclipse was caused by the Moon entering the shadow of Earth.

Then, by examining the size of that shadow, he concluded that the diameter of the Moon was approximately \( \frac{1}{3} \) the diameter of Earth.

As a result, we know that the diameter of the Sun is more than six times the diameter of Earth.

So if the Sun and Earth were made of the same material, how would their masses differ?

Actually, it’s 330,000 times heavier!

But even 200 times heavier is a big difference, isn’t it?

If the geocentric theory were correct, it would be strange for such a large Sun to make one circuit around Earth every day.

That’s the part that Aristarchus had a problem with.

But why did people continue to support the geocentric theory, when they knew the Sun was so big?

It may even be impossible!
Aristarchus questioned the geocentric model, but he didn’t create a heliocentric cosmological model to replace it. He probably couldn’t get everyone to agree on one model.

That was because it appeared to everyone that the Sun and Moon revolved around Earth.

It wasn’t easy to overturn this concept.

Don’t laugh!

A theory that no one will accept does not catch on very well, no matter how correct it is.

Well...

Yeah, yeah
...this often happens in the world of science.

Professor Sanuki!

They're so dramatic!

Cheer up!

Something has happened...

Kanna, you still don't seem satisfied.

She just doesn't know when to admit defeat...

Huh?

Hey!

Even if the sun is big, shouldn't it still be able to revolve?

Well, can you throw someone who weighs 330,000 times more than you?

Put me down!

Ooooo!
IT'S IMPOSSIBLE. YOU THINK?

OUCH.

I HATE BEING WRONG!

YOU'RE MY BEST STUDENT! YOU CAN DO IT.

OKAY, OKAY!

AHEM

GIMME A K! GIMME AN A! GIMME AN N!

KAN-TA!

ALRIGHT, ALRIGHT, ENOUGH ALREADY. SIT DOWN!

HUH?

I'LL HAVE KANTA EXPLAIN IT FROM HERE.

YES, AND THE GEOCENTRIC THEORY HAD ONE MORE FATAL ERROR.

FATAL ERROR?