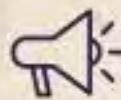




MATHS LITERACY



60 minutes



This module has sound:

before you start, make sure that your sound is active.

To begin, click on the "next" button located at the bottom right of your screen.



UPTOOL



This training will help you to...



Pedagogical objectives:

- To be able to calculate probabilities and statistics.
- To understand what are algebra and what they is useful for.
- To understand what are the analysis commercial and what they are useful for.
- To know the financial calculation.
- To discover the useful of geometry in every day of life.



Welcome ladies and gents!

You have been selected for the third and final step of this recruitment process. This step is designed to evaluate your general level of math and skills. If you pass, you will be invited to join our company.


Good luck to you!

I TAKE THE QUIZ!

Listen, you have such a great profile!

Unfortunately, your mathematical skills are not sufficient for the missions we would like to entrust to you within the company.





**This is why we would like to offer you
a unique opportunity to develop your skills,
by participating into a very special sea training trip.**

**If you succeed,
you'll be welcomed in our company!**

Are you ready for this trip?


**YES, I DO ACCEPT
THIS CRAZY TRIP!**

**YES, BUT ONLY IF
I DON'T GO ALONE!**



Welcome on board!





Hi, I am the captain driver.
And a mathematical expert as well.
It's really nice to meet you!



First of all, let me introduce you to Dolores, your teammate for this trip, who might become your best ally to succeed in your different missions.

In case of doubt during your different missions, Dolores will be able to:

- guide you to the right answer
- eliminate a wrong answer
- give you a clue
- give you a part of the right answer!



The background is a vibrant tropical island scene. A wooden frame made of four vertical posts and two horizontal beams holds a large white cloth. The cloth has a faint map of a tropical island with a dashed path, a star, and a small boat. The frame is secured with red X-shaped ties at the corners and a red clip at the top center. The island scene includes palm trees, a blue sky, and a body of water. At the bottom center, a yellow chest with a glowing effect is visible.

Let's start our tour of the mathematical world!

You are free to explore our destinations in the order of your choice.
In each destination you can earn **a Chest**.

Some planets require you to have already earned **Chests** to access them.

**Complete each destination
to complete this journey!**

LET'S GO !

SELECT OUR NEXT DESTINATION!

1



MONKEY ISLAND  

BASICS **STATISTICS - PROBABILITIES**

SCORE **350/000**

COCONUT ISLAND  

BASICS **ALGEBRA**

SCORE **000/000**



2

SELECT OUR NEXT DESTINATION!

3

PARADISE ISLAND



2 chests
to unlock



1 chest
to unlock

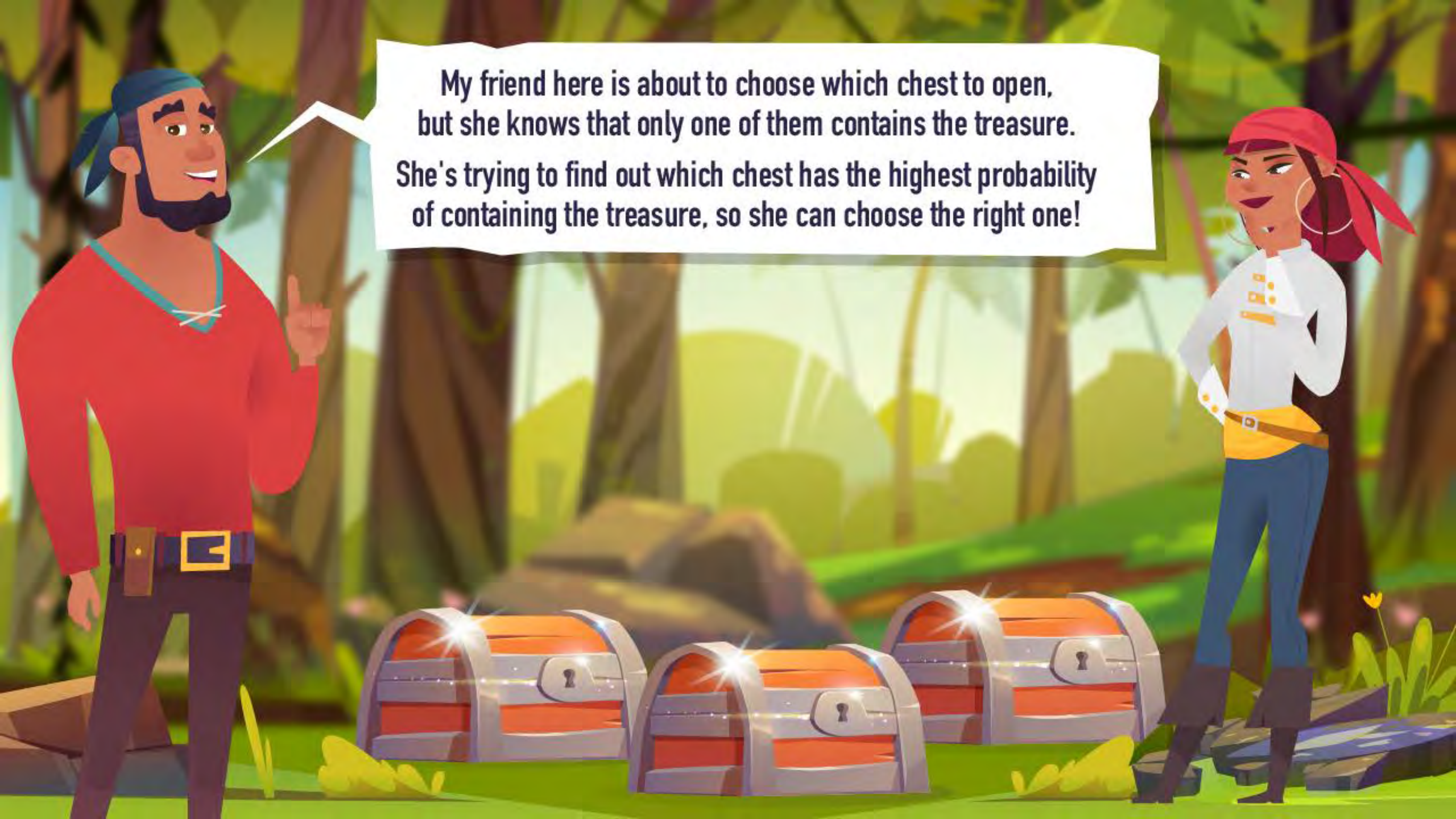
4





Welcome to Monkey Island. My name is Monka.
Come on, I'll show you around.

If you never have any luck or would like
to know what the probability is that
we'll come across a panther on our walk,
you've come to the right place!

A cartoon illustration of a man and a woman in a forest. The man on the left has a beard, a blue bandana, and a red shirt. The woman on the right has a red bandana, a white shirt, and blue pants. In the foreground, there are three treasure chests with keys. A speech bubble from the man contains text about probability.

My friend here is about to choose which chest to open, but she knows that only one of them contains the treasure. She's trying to find out which chest has the highest probability of containing the treasure, so she can choose the right one!

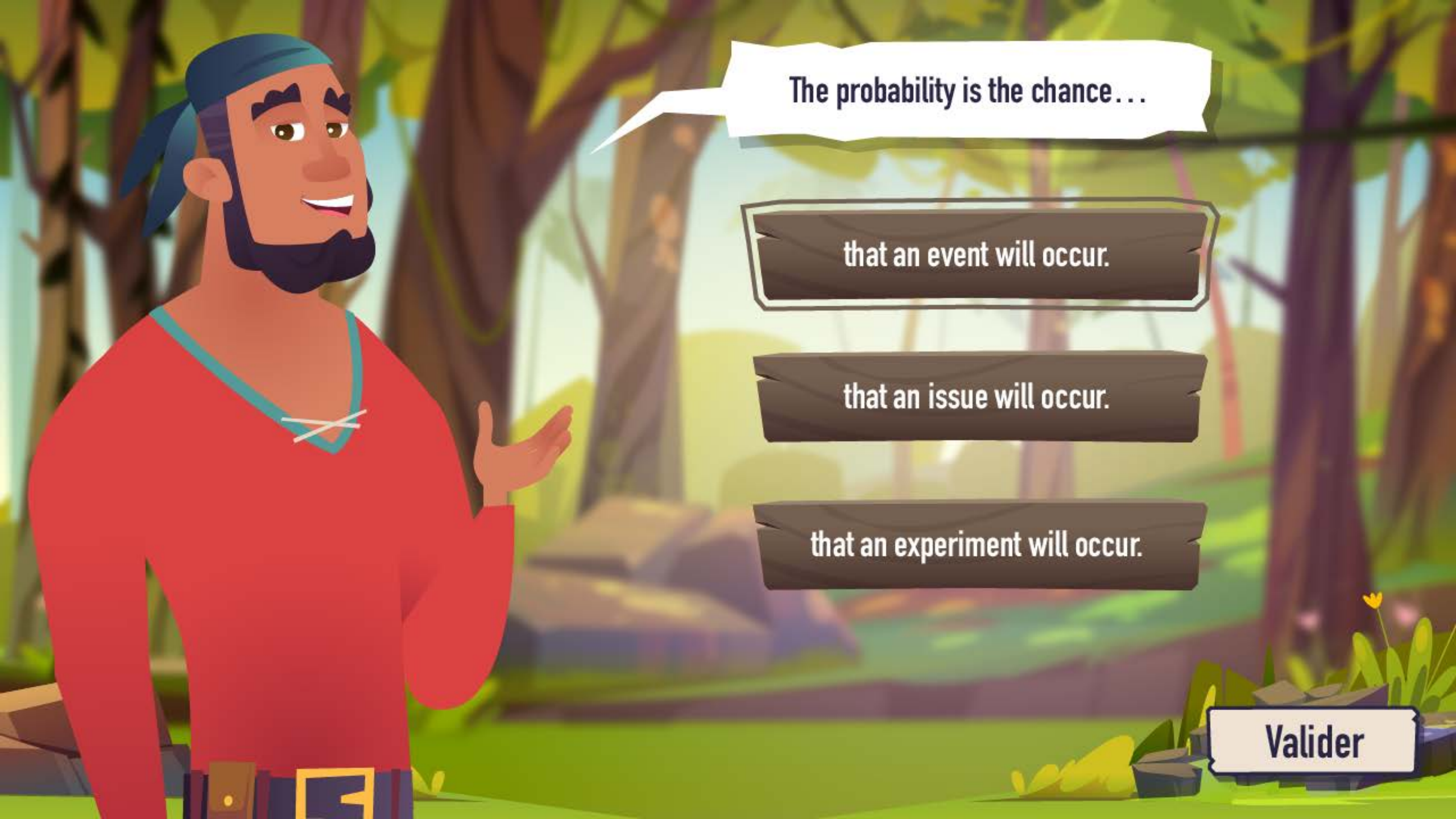


Can you help me explain her
how to calculate probabilities?



Let's begin the explanations.

When Monka hesitates, complete his sentence to help him finish the explanation.



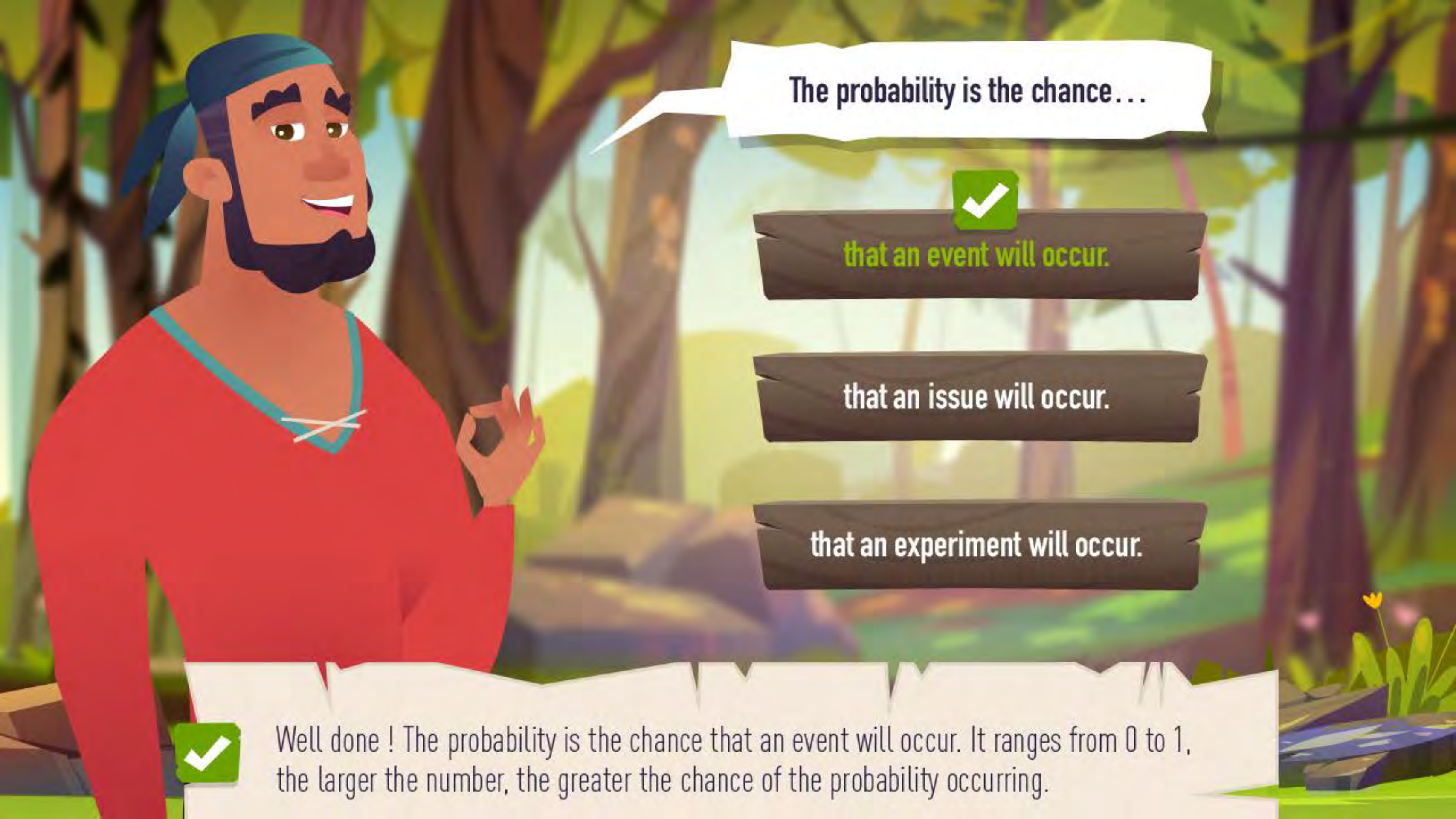
The probability is the chance...

that an event will occur.

that an issue will occur.

that an experiment will occur.

Valider



The probability is the chance...



that an event will occur.

that an issue will occur.

that an experiment will occur.



Well done ! The probability is the chance that an event will occur. It ranges from 0 to 1, the larger the number, the greater the chance of the probability occurring.



The probability is the chance...



that an event will occur.



that an issue will occur.



that an experiment will occur.



Hmm Are you sure ?

Try something else !



This value can be expressed as...

a percentage.

a fraction.

a decimal number.



This value can be expressed as...



a percentage.

a fraction.

a decimal number.



Yes but not only !

Maybe you should also try the other suggestions.



This value can be expressed as...



a percentage.



a fraction.



a decimal number.



That's alright ! This value can be expressed as a percentage, a fraction or a decimal number.



Four or two?

For the following questions, you will have to choose between square or duo.

- **If you choose square, you will be given 4 options.**
You'll have $1/4$ chance of finding the right answer.
- **On duo, only 2 suggestions.**
You'll have $1/2$ chance of finding the right answer.

Obviously, you'll earn more points with Square, but only if you get the right answer!



What is a situation with several outcome that cannot be predicted called?

What is a situation with several outcome that cannot be predicted called?



Random experiment

Issue

Universe

Event

What is a situation with several outcome that cannot be predicted called?



Random experiment

Issue







Great job ! No we know
the probabilities terms.



What better way to study probability than to roll a dice, don't you think? Let's see what we have here.



This is a random experiment: We'll roll the dice.
The issues are: 1, 2, 3, 4, 5 and 6.
The universe is $\Omega =$ the set of numbers 1; 2; 3; 4; 5; 6.



This is a random experiment: We'll roll the dice.
The issues are: 1, 2, 3, 4, 5 and 6.
The universe is $\Omega =$ the set of numbers 1; 2; 3; 4; 5; 6.



The event "get an odd number" consists of the numbers 1; 3; 5.
The event consisting of 2; 4; 6 is:


Opposite issue



Opposite event

An illustration of two pirates in a forest. On the left, a man with a beard and a blue bandana wears a red long-sleeved shirt and a dark belt with a gold buckle. On the right, a woman with a red bandana wears a white long-sleeved shirt with gold buttons and a yellow sash. They are standing around a wooden stump that serves as a table, with three white dice on it. A speech bubble above them says "We are making progress!". The background shows a lush green forest with trees and a large rock.

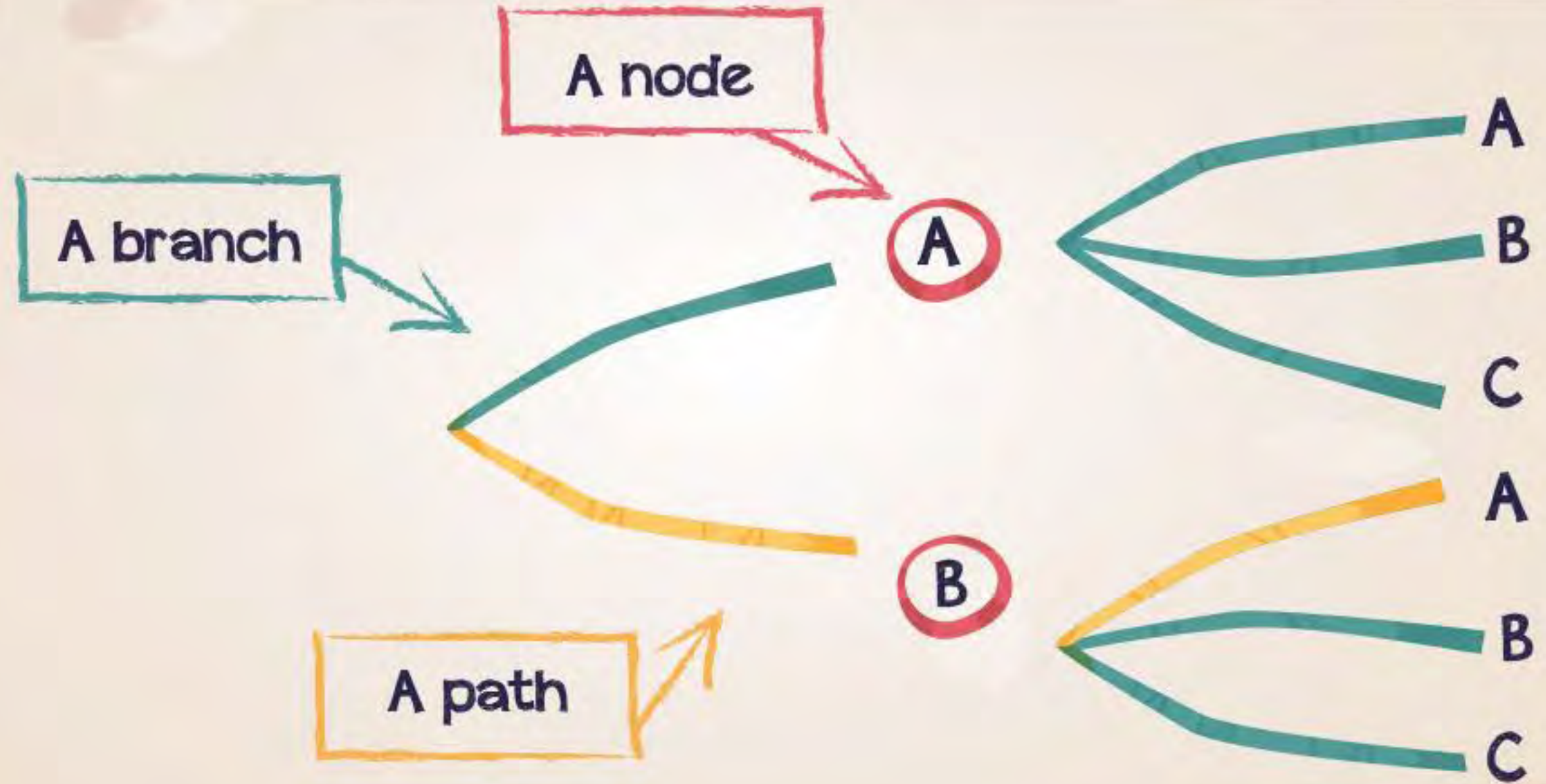
We are making progress!



In our case, the event "to obtain the treasure" is consequently an elementary event, but not a certain event!

In probability, data can be represented thanks to tree diagrams. Creating a tree diagram can help you represent the data of your problem and solve it easily.

Click on each label to discover it.



In probability, data can be represented thanks to tree diagrams. Creating a tree diagram can help you represent the data of your problem and solve it easily.

Click on each label to discover it.

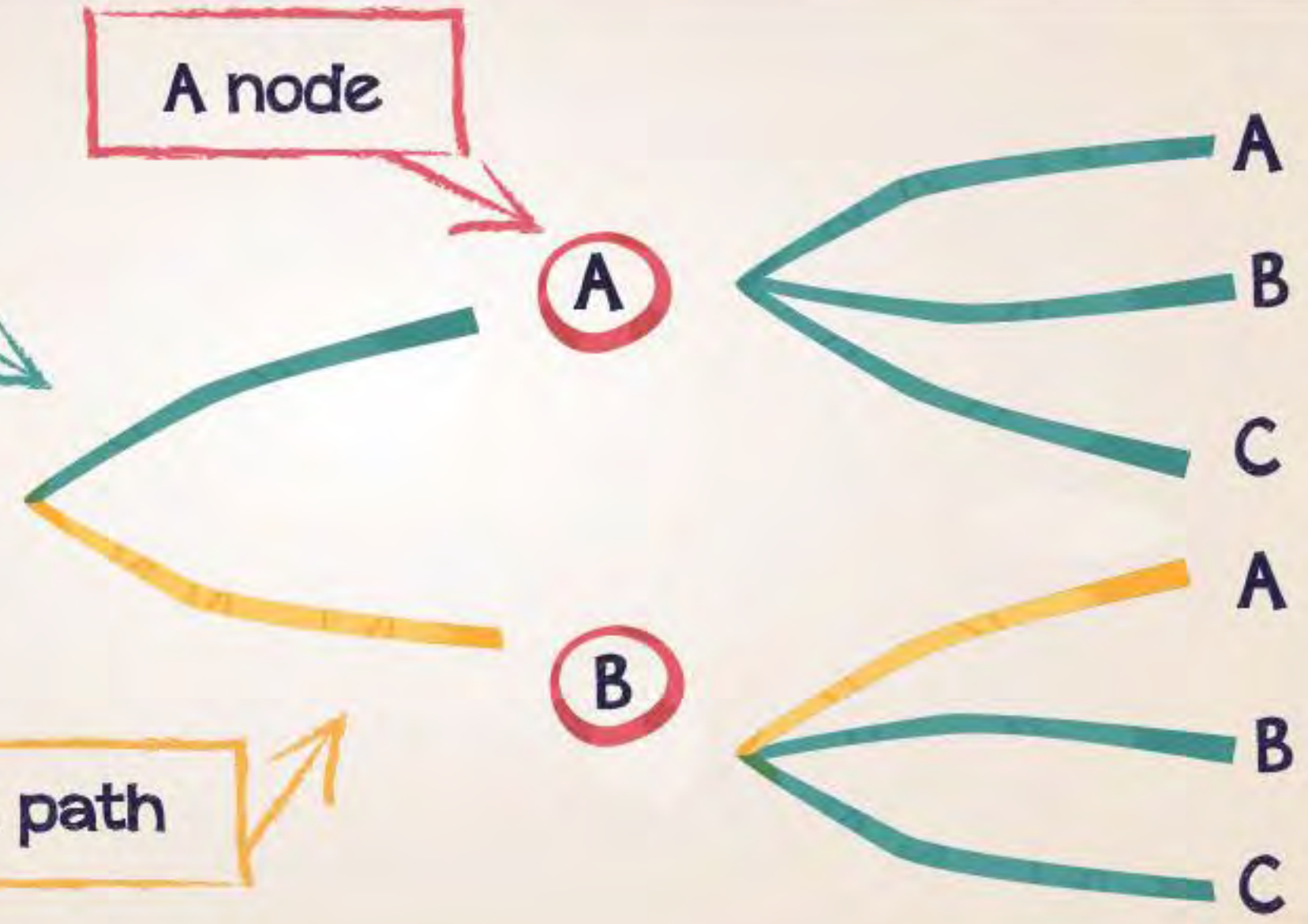


A branch

A branch links two successive events. On each branch, we note the probability. At this end of the branch, we note the issue.

A path

A node



In probability, data can be represented thanks to tree diagrams. Creating a tree diagram can help you represent the data of your problem and solve it easily.

Click on each label to discover it.

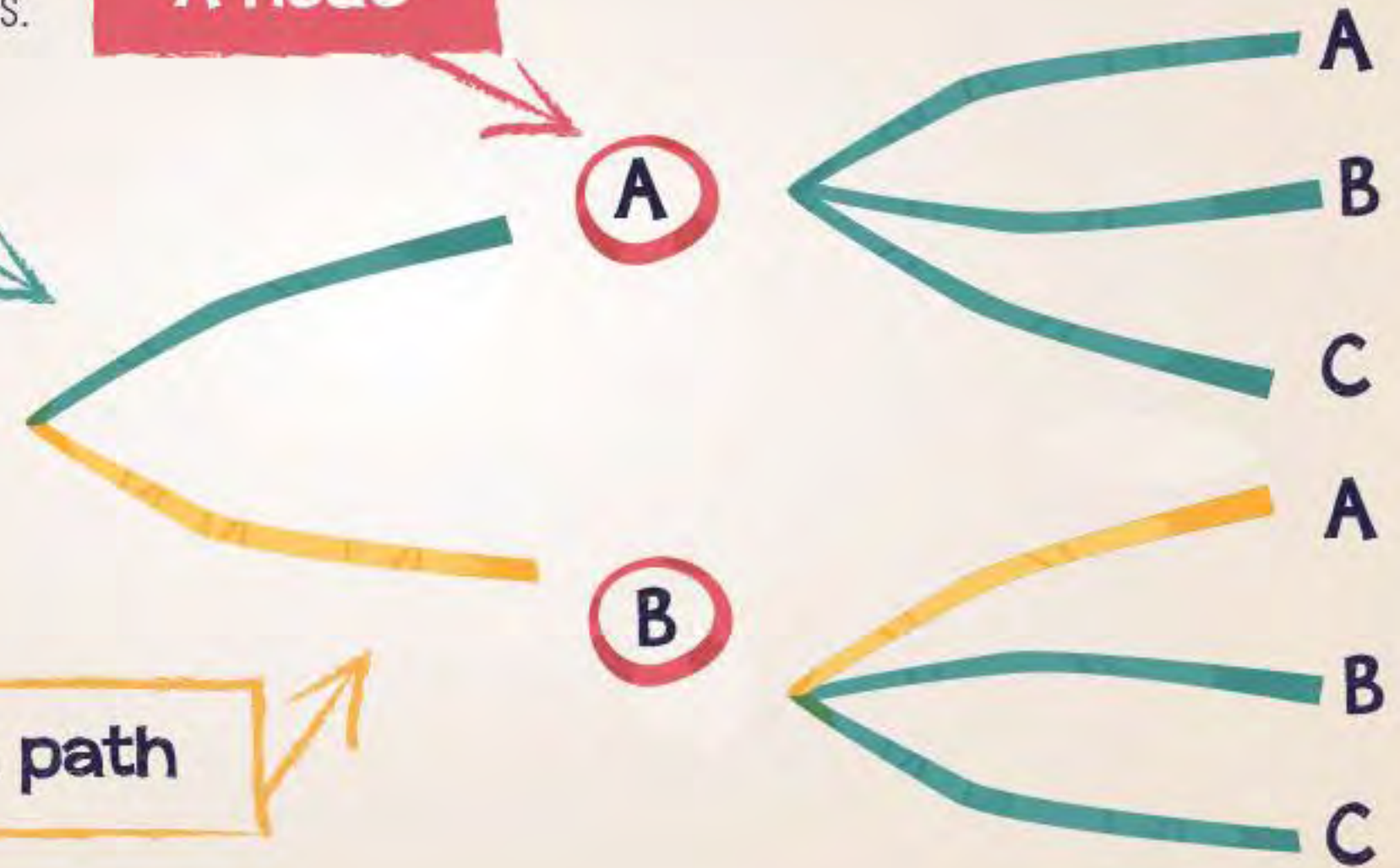


A node is the starting point of one or more branches.

✓ A branch

A node

A path



In probability, data can be represented thanks to tree diagrams. Creating a tree diagram can help you represent the data of your problem and solve it easily.

Click on each label to discover it.

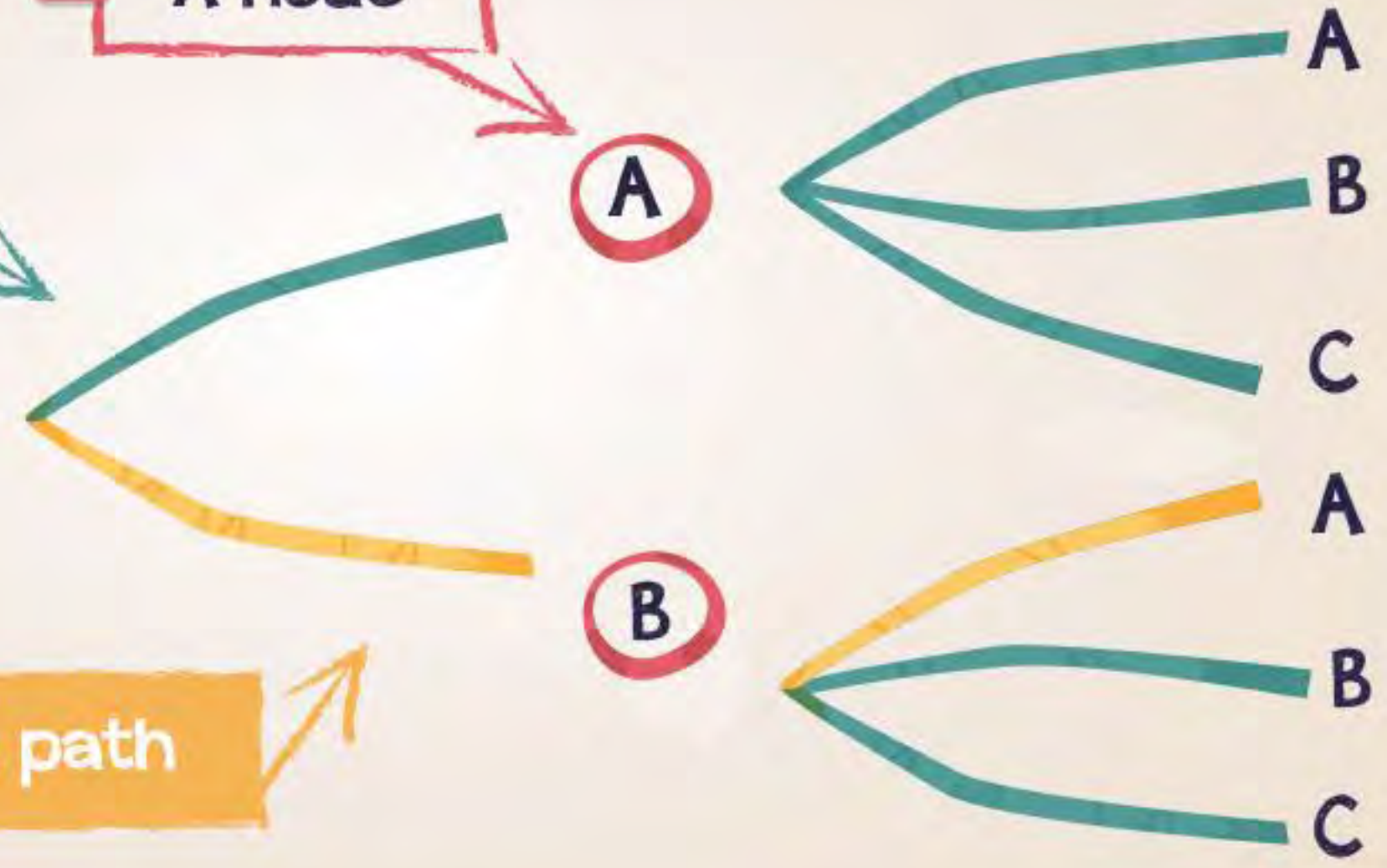


✓ A branch

✓ A node

A path

A path is a sequence of branches. It represents the intersection of the events encountered on the path.



In probability, data can be represented thanks to tree diagrams. Creating a tree diagram can help you represent the data of your problem and solve it easily.

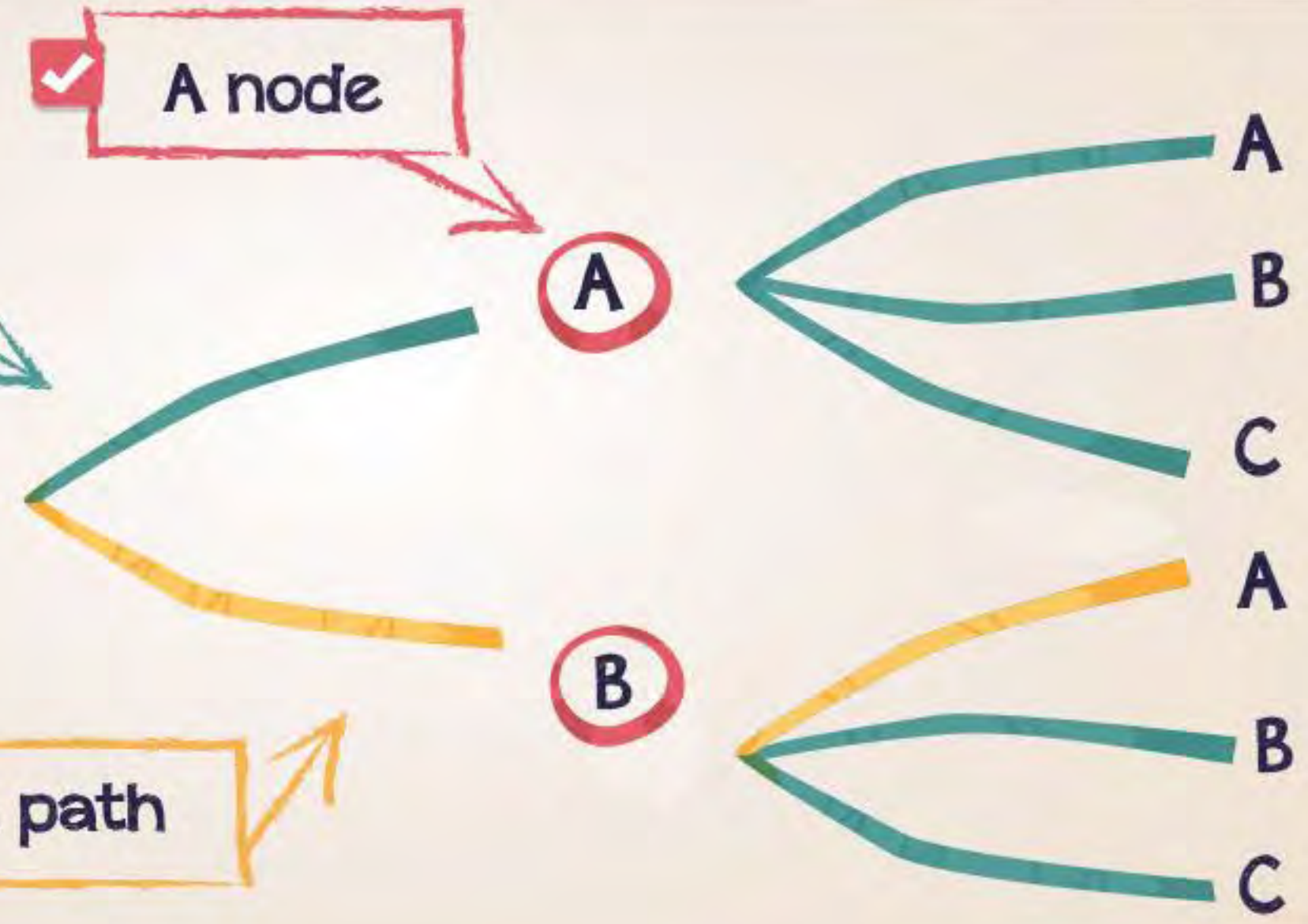
Click on each label to discover it.



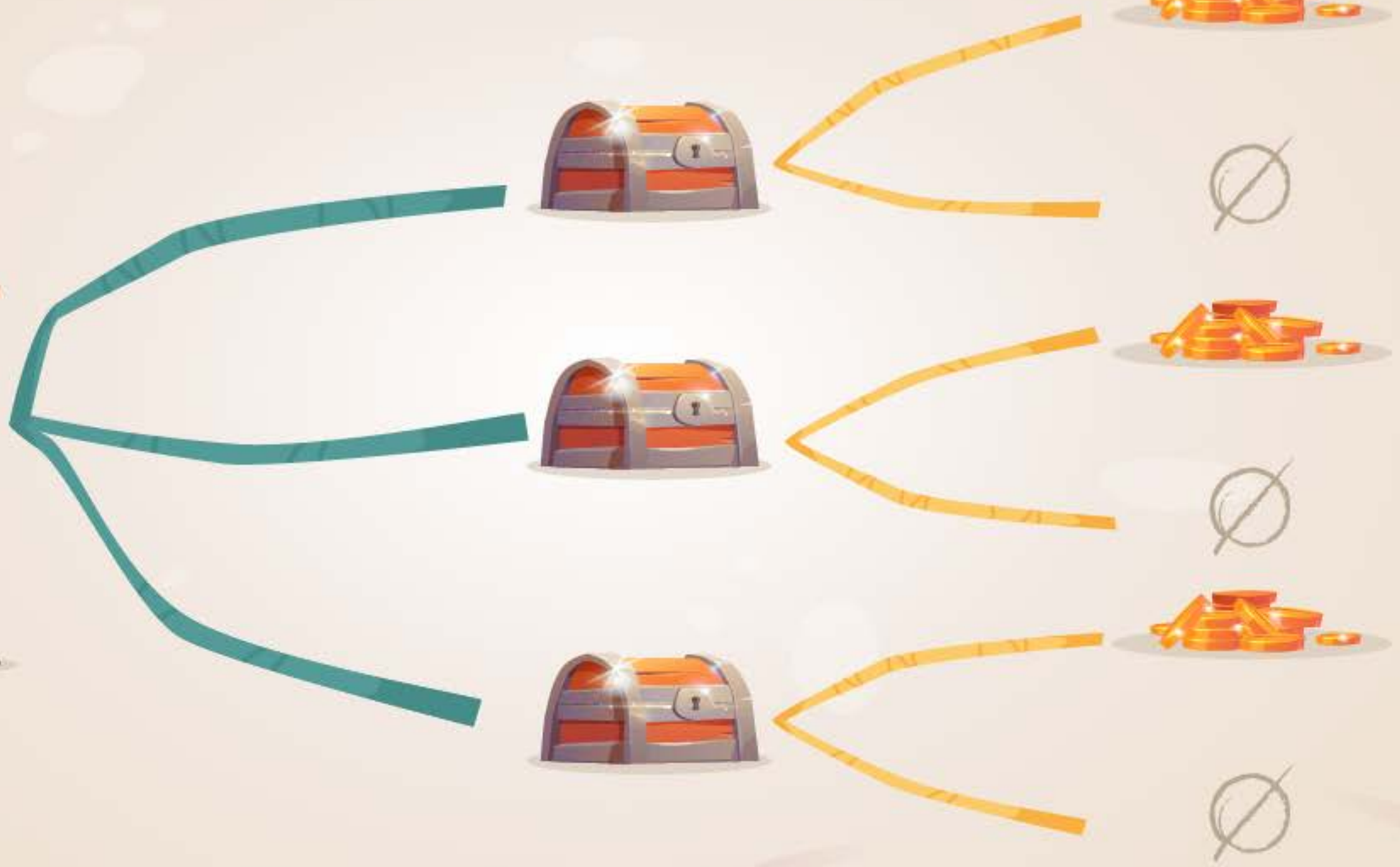
✓ A branch


✓ A node

✓ A path



In our case, it's a really simple tree.



A cartoon illustration of a man and a woman in a forest. The man, on the left, has a beard and is wearing a red tunic and a blue headband. He is gesturing with his right hand. The woman, on the right, is wearing a white jacket, blue pants, and a red headscarf. She is looking at the man. In the background, there are several treasure chests with keys on them, and a large rock. The scene is set in a lush green forest with tall trees and a bright sky.

Now that we've seen the trees,
let's see how good you are
at probabilities.



A 12-sided dice is given with numbers from 1 to 12.
The number of the top face of the dice is noted.

What is the probability of obtaining a multiple of 4?

$1/5$

$1/4$

$3/12$



A 12-sided dice is given with numbers from 1 to 12.
The number of the top face of the dice is noted.

What is the probability of obtaining a multiple of 4?

$1/5$

$1/4$

$3/12$



Multiples of 4 are 4, 8 and 12. The probability of obtaining a multiple of 4 is $1/4$.
Here, the result is expressed as a fraction.



A 12-sided dice is given with numbers from 1 to 12.
The number of the top face of the dice is noted.

What is the probability of obtaining a multiple of 4?

$1/5$

$1/4$

$3/12$



Multiples of 4 are 4, 8 and 12. The probability of obtaining a multiple of 4 is $1/4$.
Here, the result is expressed as a fraction.



Let's play a little probability game! Are you up to the challenge?

Probabilities Game



Question 1

A lottery wheel is composed of 5 sectors of different areas. The sectors are numbered from 1 to 5. The wheel is spun. When the wheel stops, the indicator points to a sector.

Calculate the probability that sector 3 is designated. Choose the correct probability.



1/5



5/1



2/5



Question 4

There are 8 cards. One card is drawn at random from among these cards.



What is the probability of getting a club?

$4/8$

$3/8$

$1/2$



Great you did it!

Probabilities
Game Results



There are a few mistakes, but you've done pretty well.

Probabilities
Game Results

Now we know there's a $\frac{1}{3}$ chance of a treasure in each chest.

$\frac{1}{3}$



$\frac{1}{3}$



$\frac{1}{3}$



My friend has chosen her chest, but unfortunately it's empty.
Now it's your turn to choose a chest.
Do you know what is your probability of getting the treasure?



1/4 probability

1/3 probability

1/2 probability

1/3



1/3



My friend has chosen her chest, but unfortunately it's empty.
Now it's your turn to choose a chest.
Do you know what is your probability of getting the treasure?



1/4 probability

1/3 probability

1/2 probability

1/3

1/3



Choose this chest

Choose this chest

My friend has chosen her chest, but unfortunately it's empty.
Now it's your turn to choose a chest.
Do you know what is your probability of getting the treasure?



1/4 probability



1/3 probability



1/2 probability

1/3




Choose this chest

1/3



Choose this chest



Well done, you've won a treasure
You've been a great help, now you can carry on your
journey. I wish you good luck for the rest of your trip!

**Welcome on board!
Congratulations to you,
you did a great job, and obtained
a Chest for the next Island!**



SELECT OUR NEXT DESTINATION!



1



COCONUT ISLAND  

BASICS ALGEBRA

SCORE **000**/000



2

MONKEY ISLAND  

BASICS STATISTICS - PROBABILITIES

SCORE **350**/000

SELECT OUR NEXT DESTINATION!

3

PARADISE ISLAND




2 chests
to unlock



1 chest
to unlock

4



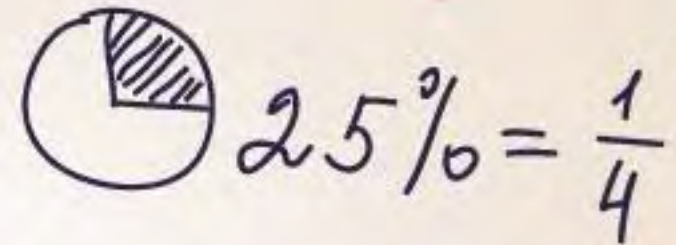


Welcome on the Coconut Island. My name is Coco Pirate
I'm in a hurry because I have to prepare food for our
guests. But I've only got one recipe for 3 and there
are 16 of us! Will you help me adjust the quantities?
We're going to need ... some algebra!

Algebra allows us to solve problems
in our daily lives using symbols.

$$AB = \sqrt{AB_x^2 + AB_y^2}$$

$$\pi = 3,1415$$

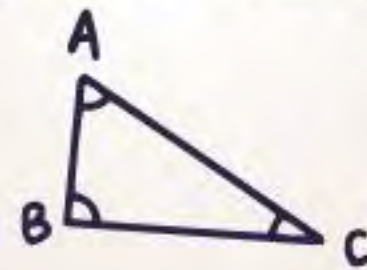


$$\sin 60^\circ = \frac{\sqrt{3}}{2}$$

$$1+1=2$$

$$(a+b)^2 = a^2 + 2ab + b^2$$

$$b = r \frac{S_y}{S_x}$$



ABC



$$a^2 = b^2 + c^2 \quad \sqrt{12}$$

$$\Sigma = n - 1$$



What is a proportional sequence?

Two quantities are proportional if the values of the second sequence are always obtained by _____ the values of the first sequence by the same number.

multiplying

dividing

adding



What is a proportional sequence?

Two quantities are proportional if the values of the second sequence are always obtained by **multiplying** the values of the first sequence by the same number.



multiplying

dividing

adding

This same number is the proportionality coefficient. Choose the right proportionality coefficient for the following sequences?

1	3	5	2	x ?
2	6	10	4	

1

5

2




Exactly ! The first row is moved to the second by multiplying them together. The second row is moved to the first row by dividing the largest value by the smallest.

1	3	5	2	x ?
2	6	10	4	


1

5

2



For the following questions, two proposals will appear, one of which will be hidden. According to you, which is the correct answer?



Find the proportionality coefficient of the following sequences:

15
22,5

2
3

5
7,5

11
16,5

x 1.5

x 2.5

Find the proportionality coefficient of the following sequences:

15
22,5

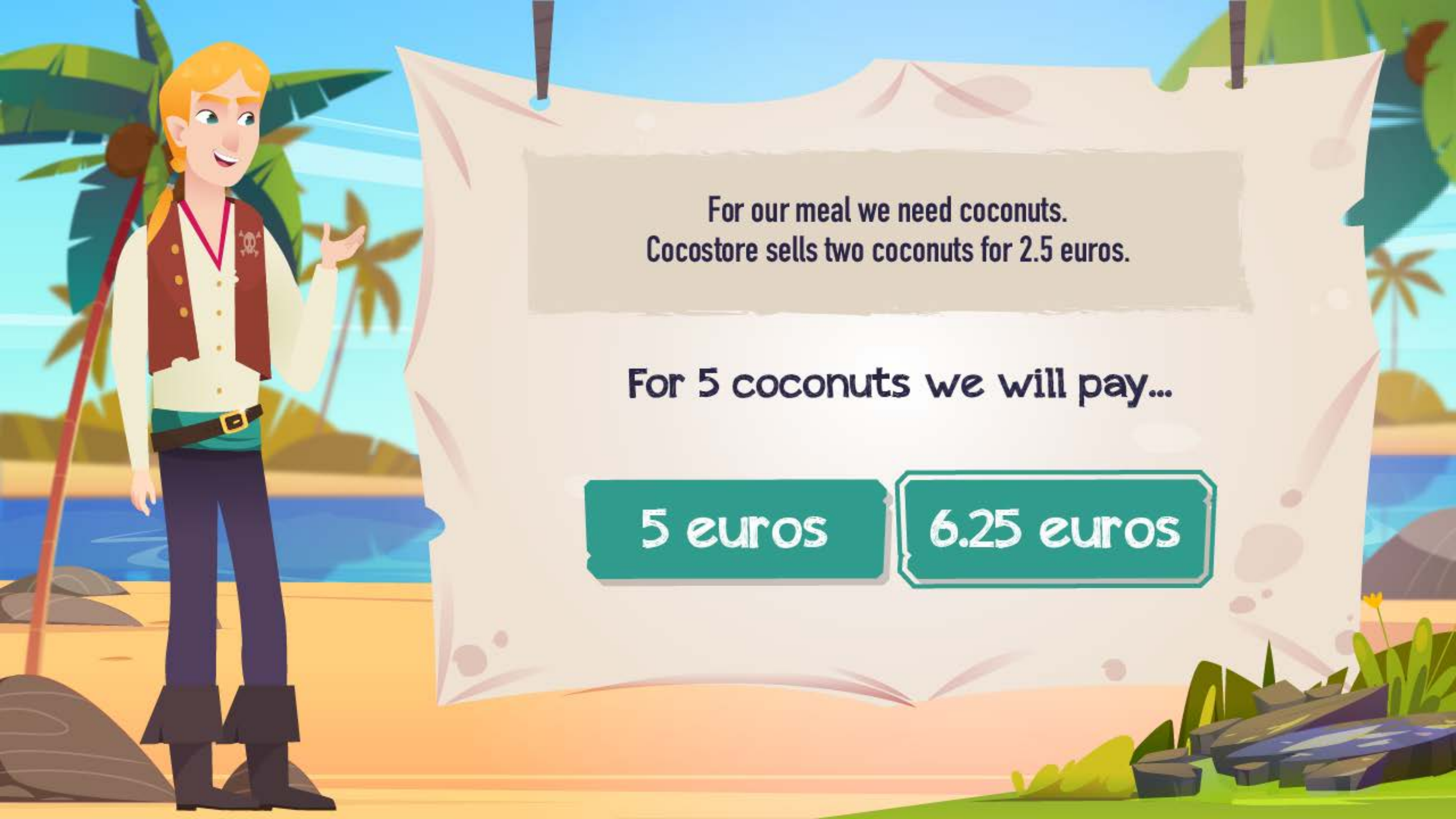
2
3

5
7,5

11
16,5

x 1.5

x 2.5

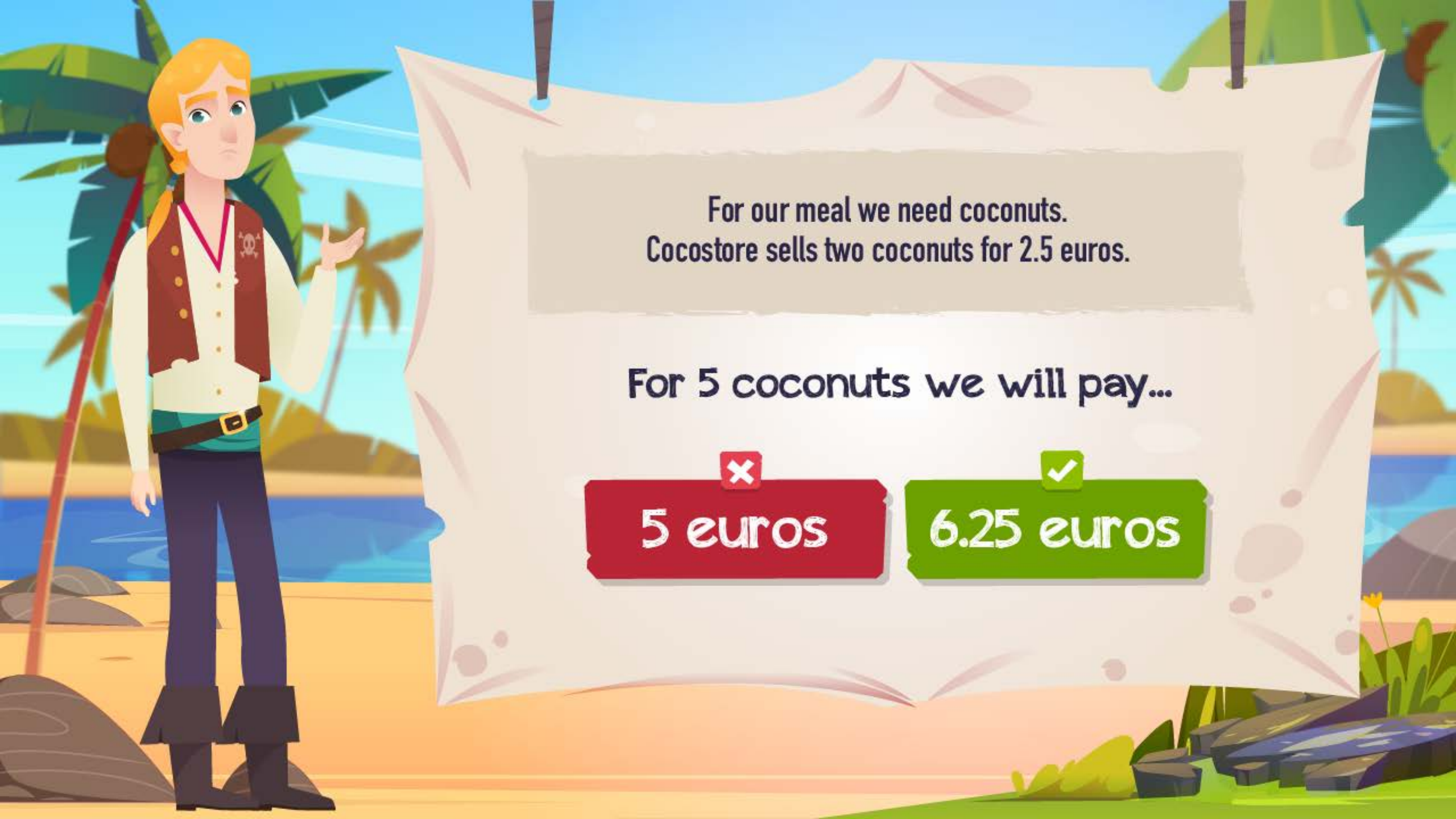


For our meal we need coconuts.
Cocostore sells two coconuts for 2.5 euros.

For 5 coconuts we will pay...

5 euros

6.25 euros



For our meal we need coconuts.
Cocostore sells two coconuts for 2.5 euros.

For 5 coconuts we will pay...



5 euros



6.25 euros



The proportionality coefficient can also be called the multiplier coefficient.



Why use percentage?

It's easier

It's faster

it's more reliable



Why use percentage?

✓
It's easier

✗
It's faster

✗
It's more reliable

Using a percentage is much easier.

1

3

5

2

2

6

10


4

x

?

A scale indicates the dimensions of a map. A scale is expressed using proportionality. The map of a country at the scale $1/1000$ means that the map is 1000 times smaller than in reality.





But percentages aren't everything.
For our recipe, working with equations
can be particularly useful!



Which of these calculations is an equation?

$$2+x=1$$

$$2+3=5$$

$$(2*6)+7=20$$



Yes !! An equation is a literal expression in the form of an equality between 2 members. The part on the left is equal to the part on the right. The unknowns are replaced by the letter x. To solve an equation, you must find the value of x.



$$2+x=1$$

$$2+3=5$$

$$(2*6)+7=20$$



How recognise a first degree equation?

There is one unknown

There is two unknown

There is three unknown



A 1st degree equation is an equality in which there is only an unknown. $ax+b=0$ where a and b are real numbers and x is the unknown.



There is one unknown

There is two unknown

There is three unknown



A 1st degree equation is an equality in which there is only an unknown. $ax+b=0$ where a and b are real numbers and x is the unknown.



There is one unknown



There is two unknown



There is three unknown



Find
the unknown



X

Solve these equation:

$$46-3+10=(25*2)+x$$

$$x = ?$$

 4 3



X

Solve these equation:

$$46-3+10=(25*2)+x$$

$$x = ?$$

4

3



X

Solve these equation:

$$46-3+10=(25*2)+x$$


$$x = ?$$



4

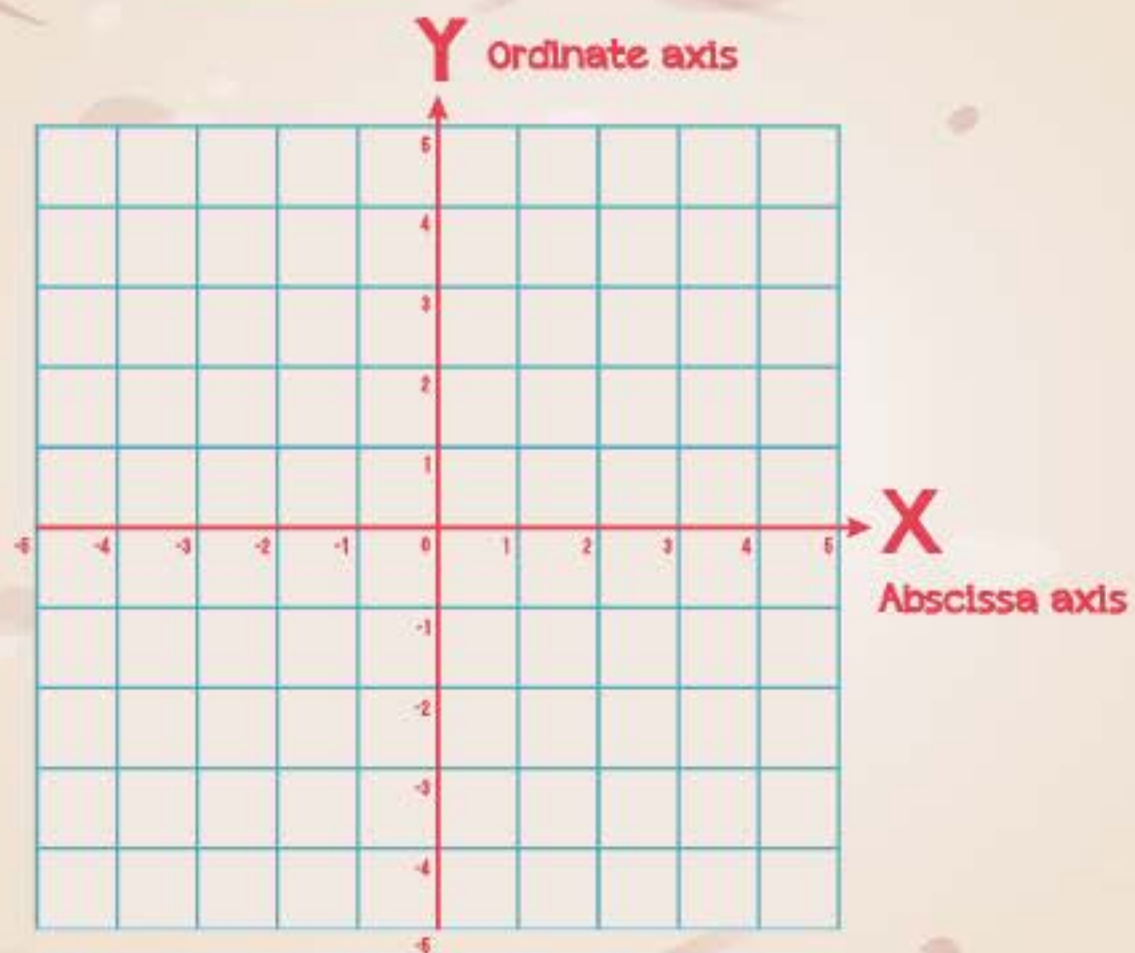



3



A function links two things together. For example, the distance travelled by an animal is related to the speed at which it runs.

How to locate axis?






A function is a relationship that associates a unique number with each value. These two values are the coordinates.

Unique image

Antecedent

Abscissa axis

Ordinate axis



A unique image: x which is on the **abscissa axis**.
An antecedent: y which is on the **ordinate axis**.

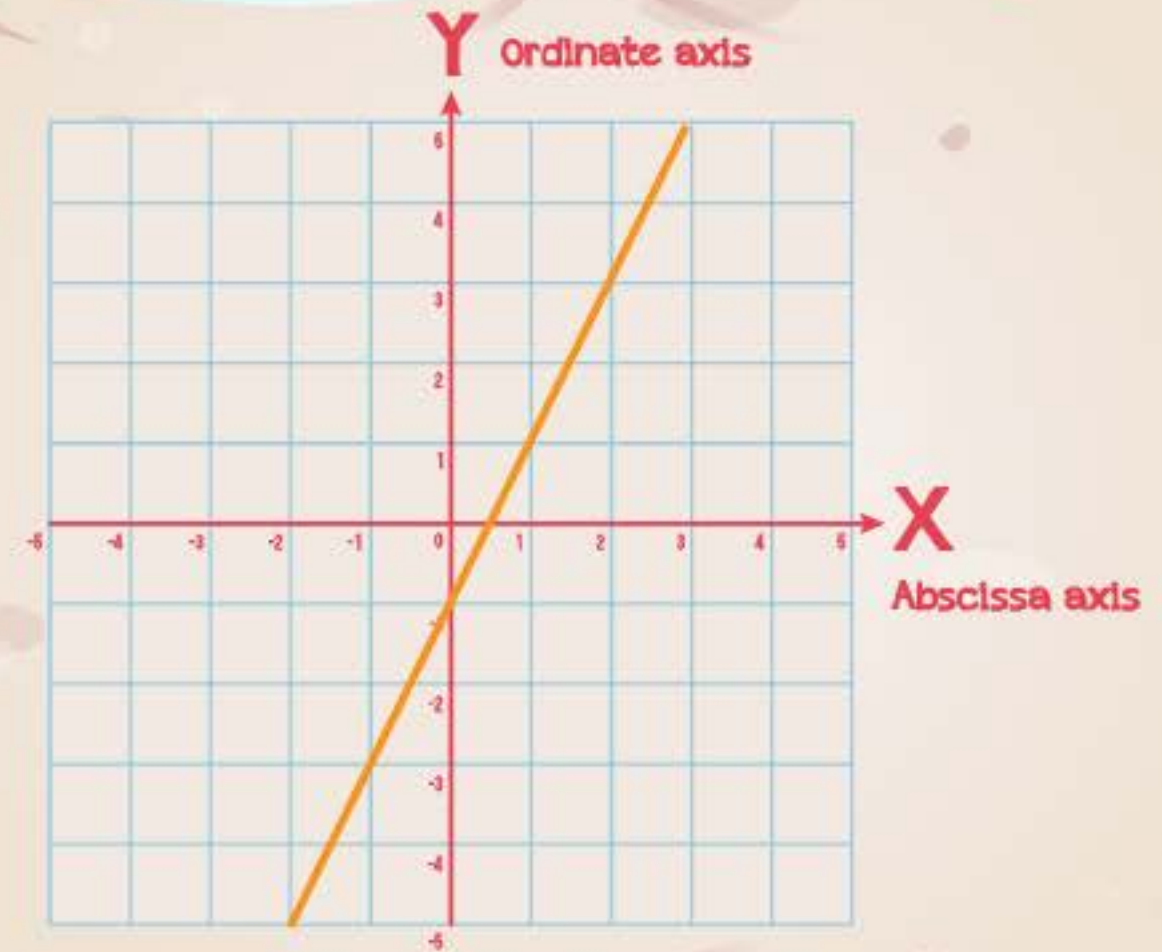
Unique image

Antecedent

Abscissa axis

Ordinate axis

For example, a function $f(x)=2x+3$, this function associate $2x+3$ with any x . A function can be represented by a graph and an algebraic equation.





Function
game



Which function corresponds to this representation?

Select the correct answer.

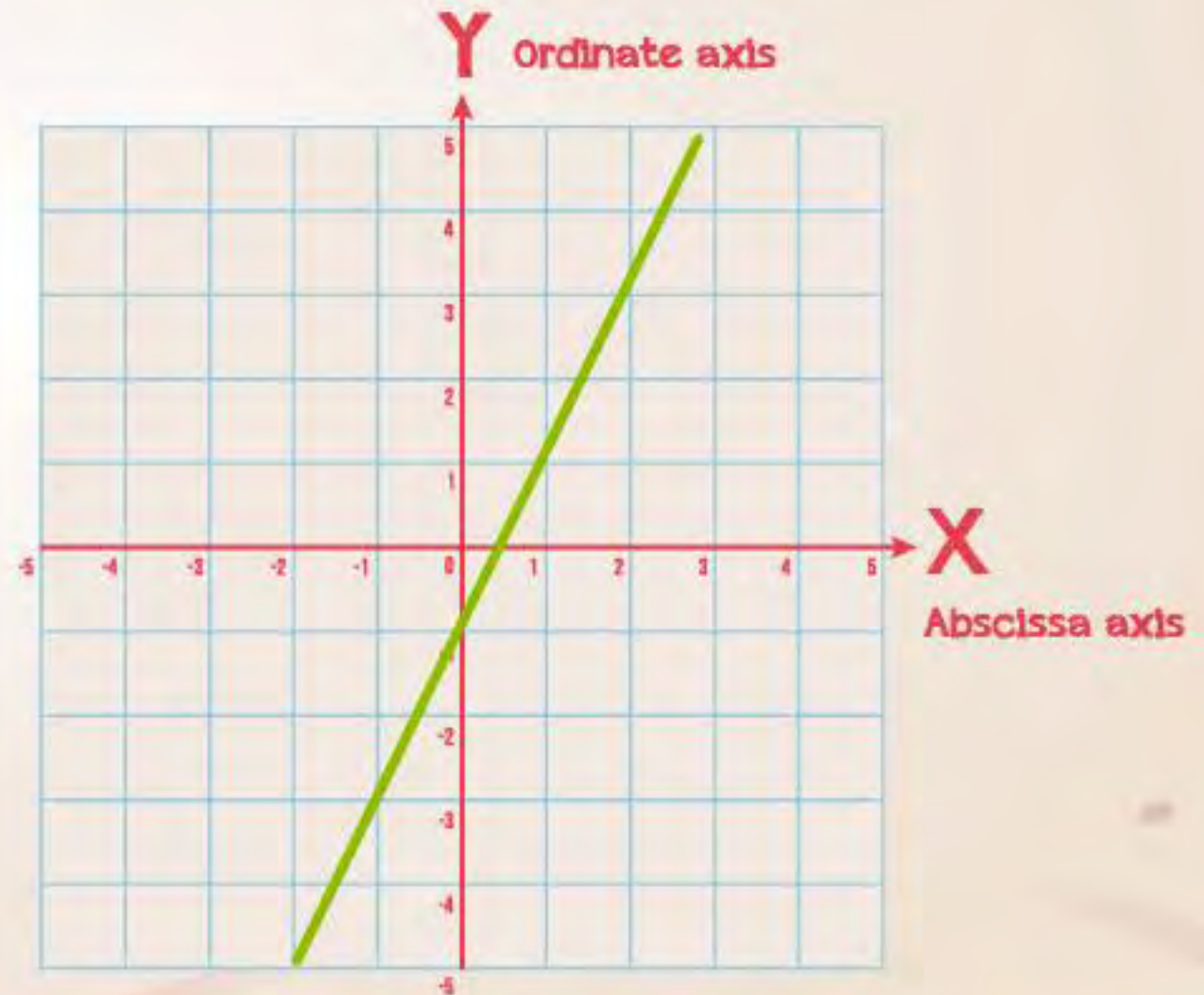
Linear

Square

Cube

Inverse

Square roots





Which function corresponds to this representation?

Select the correct answer.

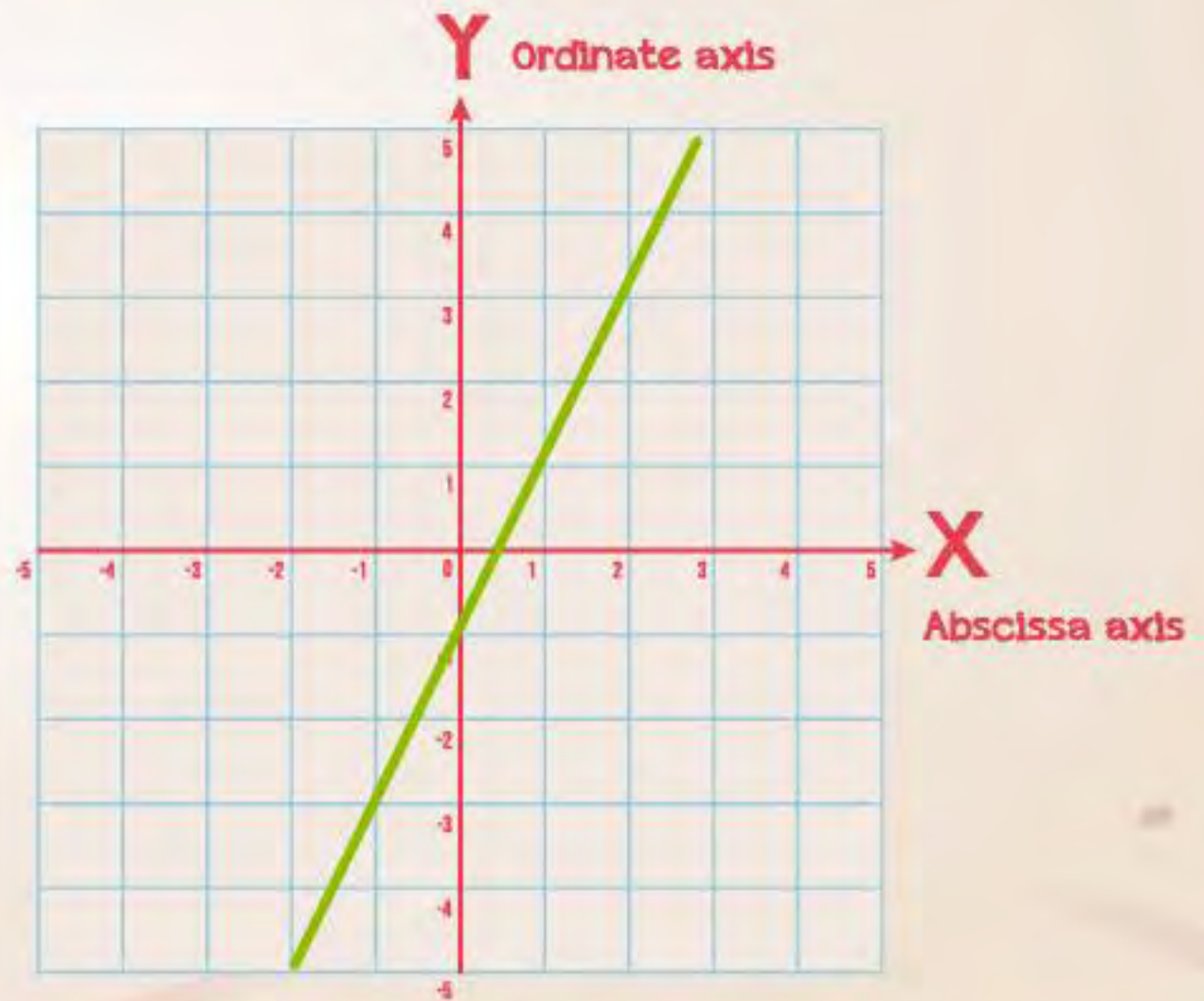
Linear

Square

Cube

Inverse

Square roots





Which function corresponds to this representation?

Select the correct answer.



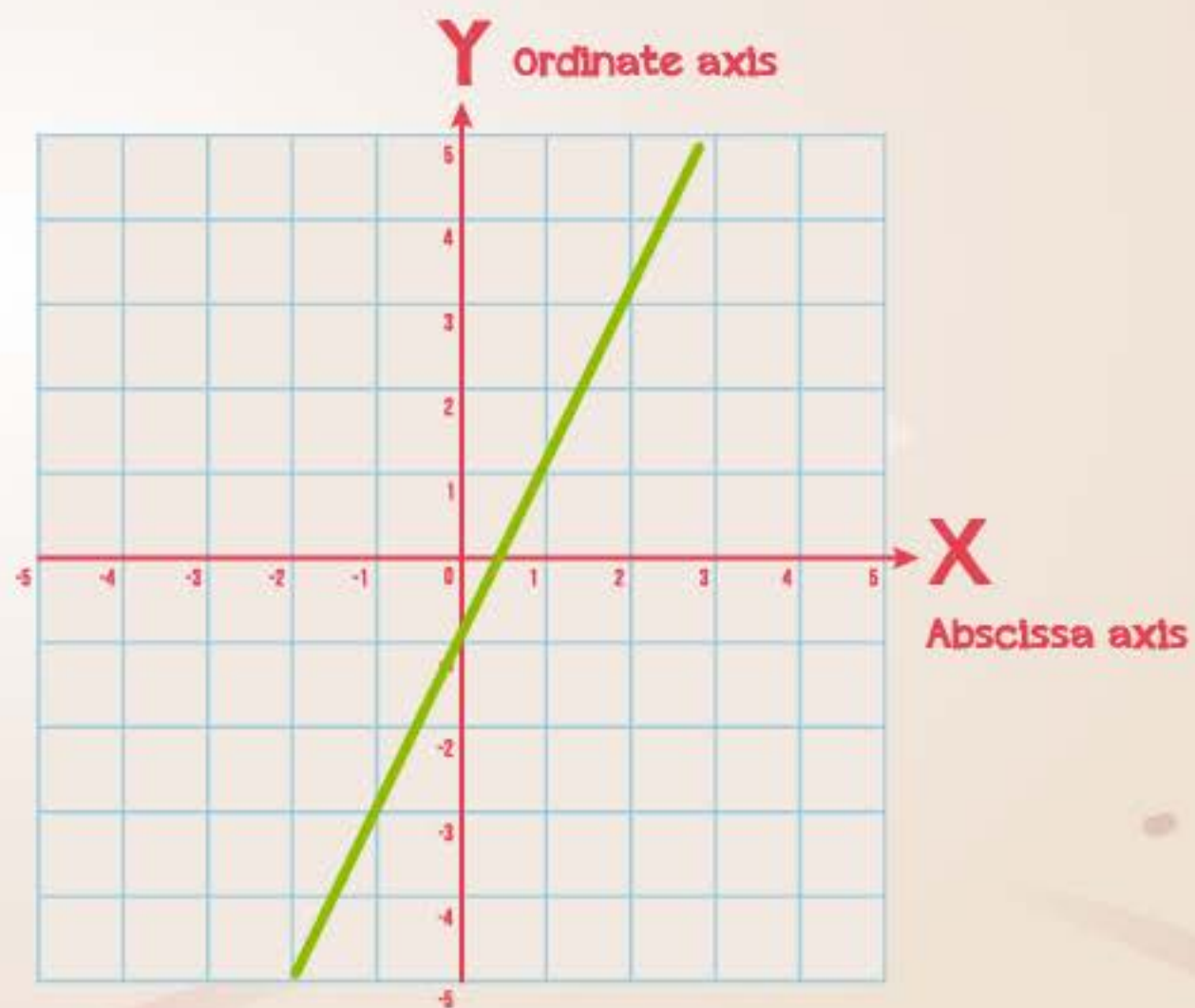
Linear

Square

Cube

Inverse

Square roots





Which function corresponds to this representation?

Select the correct answer.



Linear

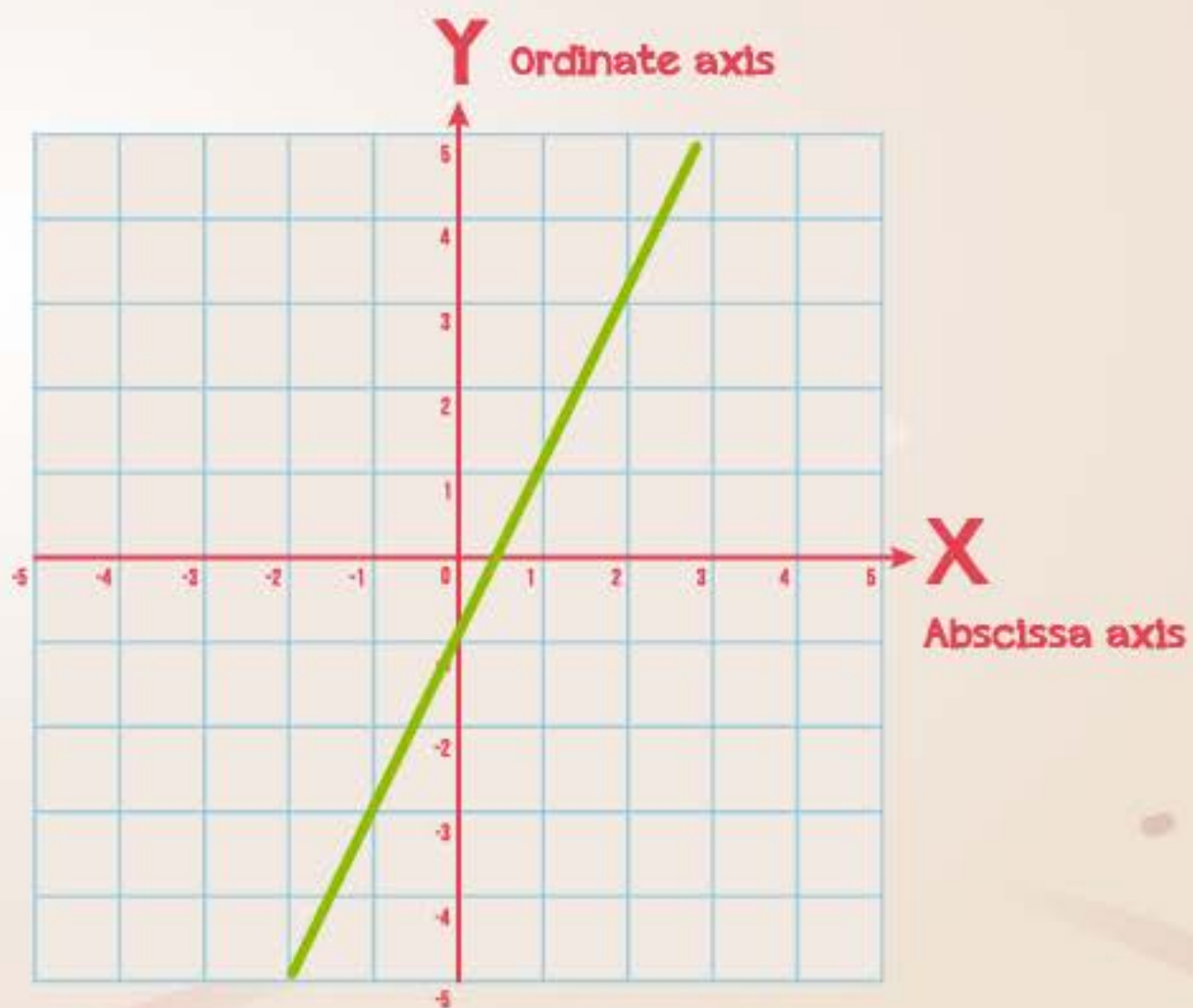
Square



Cube

Inverse

Square roots





Which function corresponds to this representation?

Select the correct answer.

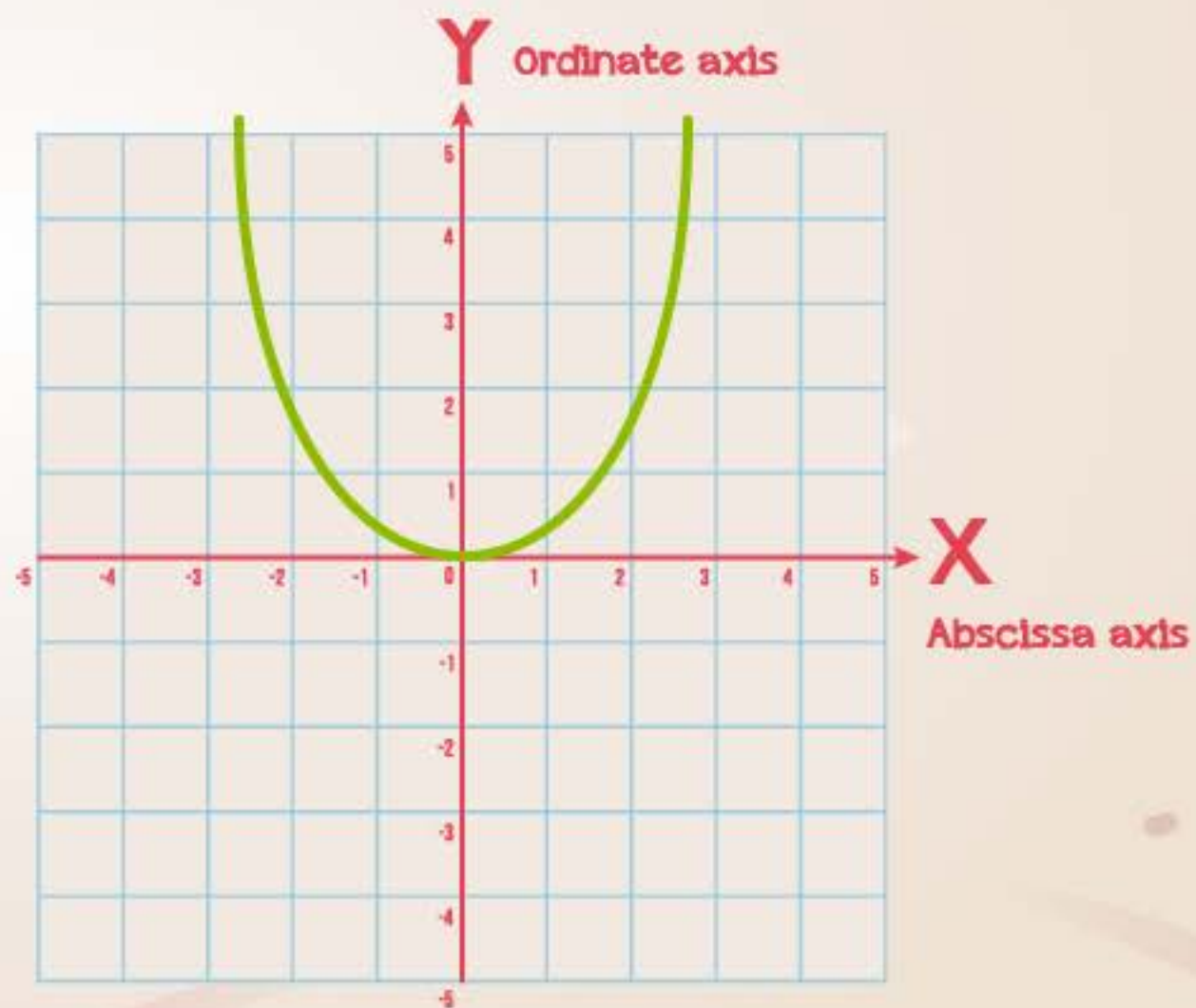
Linear

Square

Cube

Inverse

Square roots





Which function corresponds to this representation?

Select the correct answer.

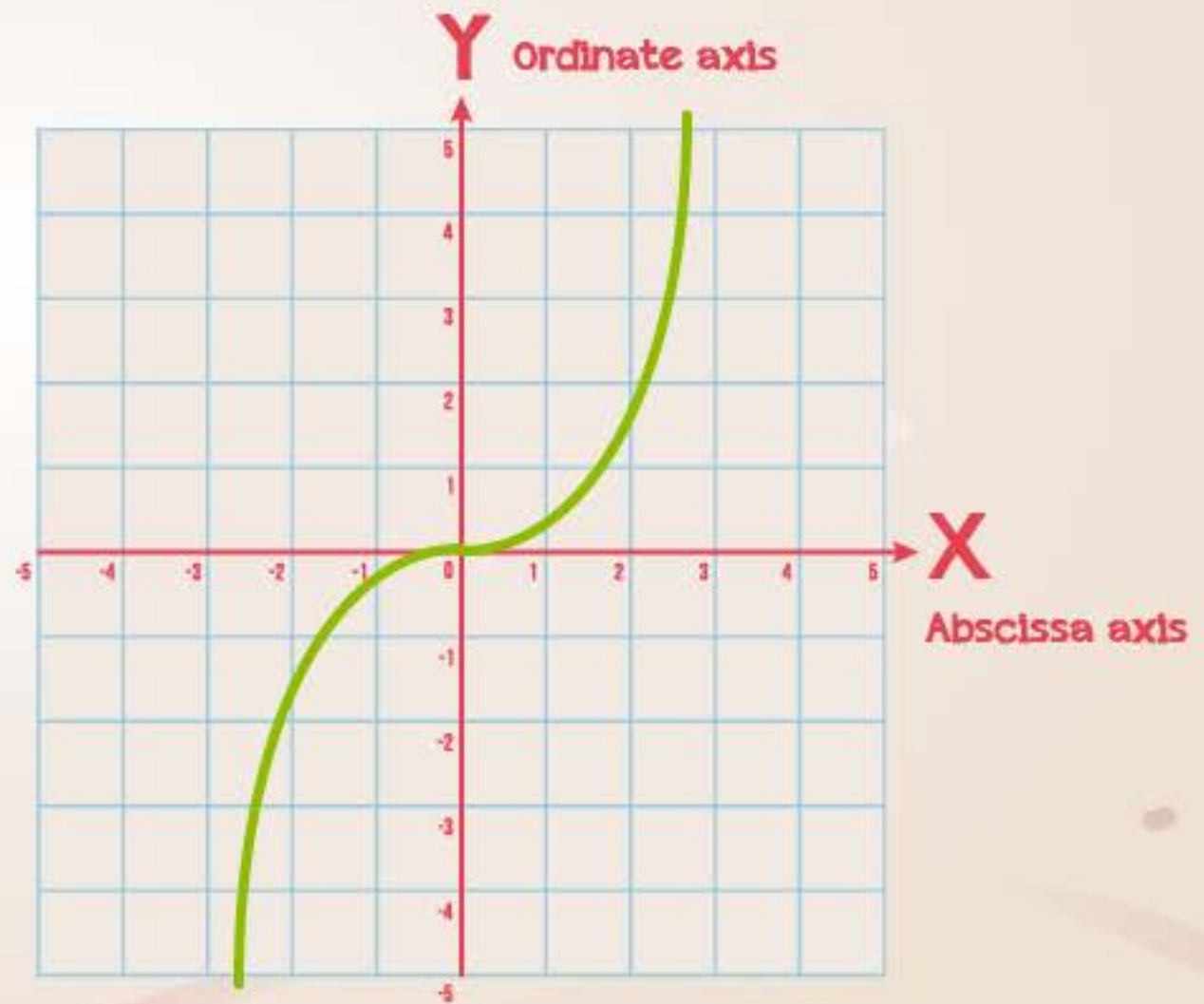
Linear

Square

Cube

Inverse

Square roots





Which function corresponds to this representation?

Select the correct answer.

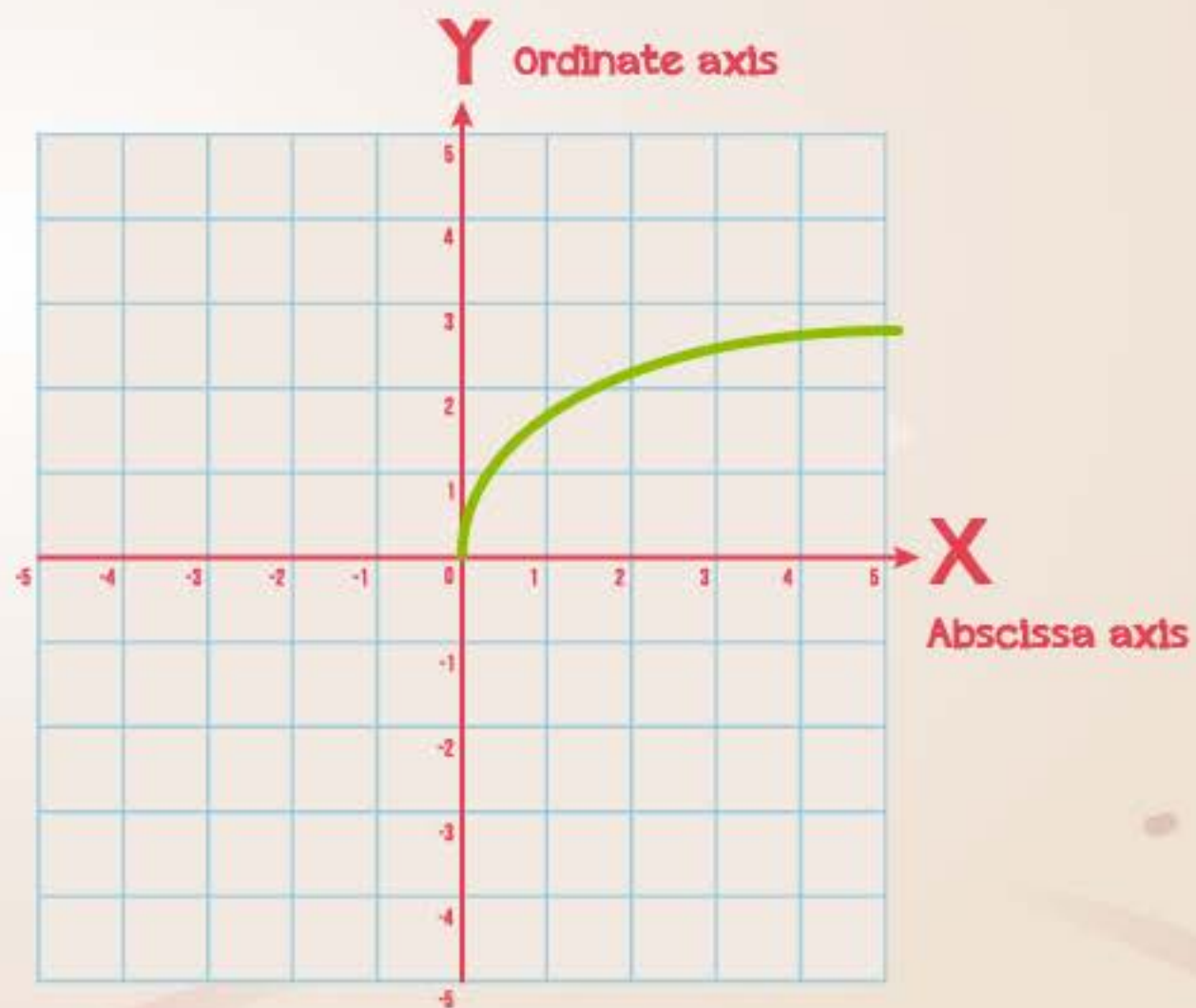
Linear

Square

Cube

Inverse

✓
Square roots





Which function corresponds to this representation?

Select the correct answer.

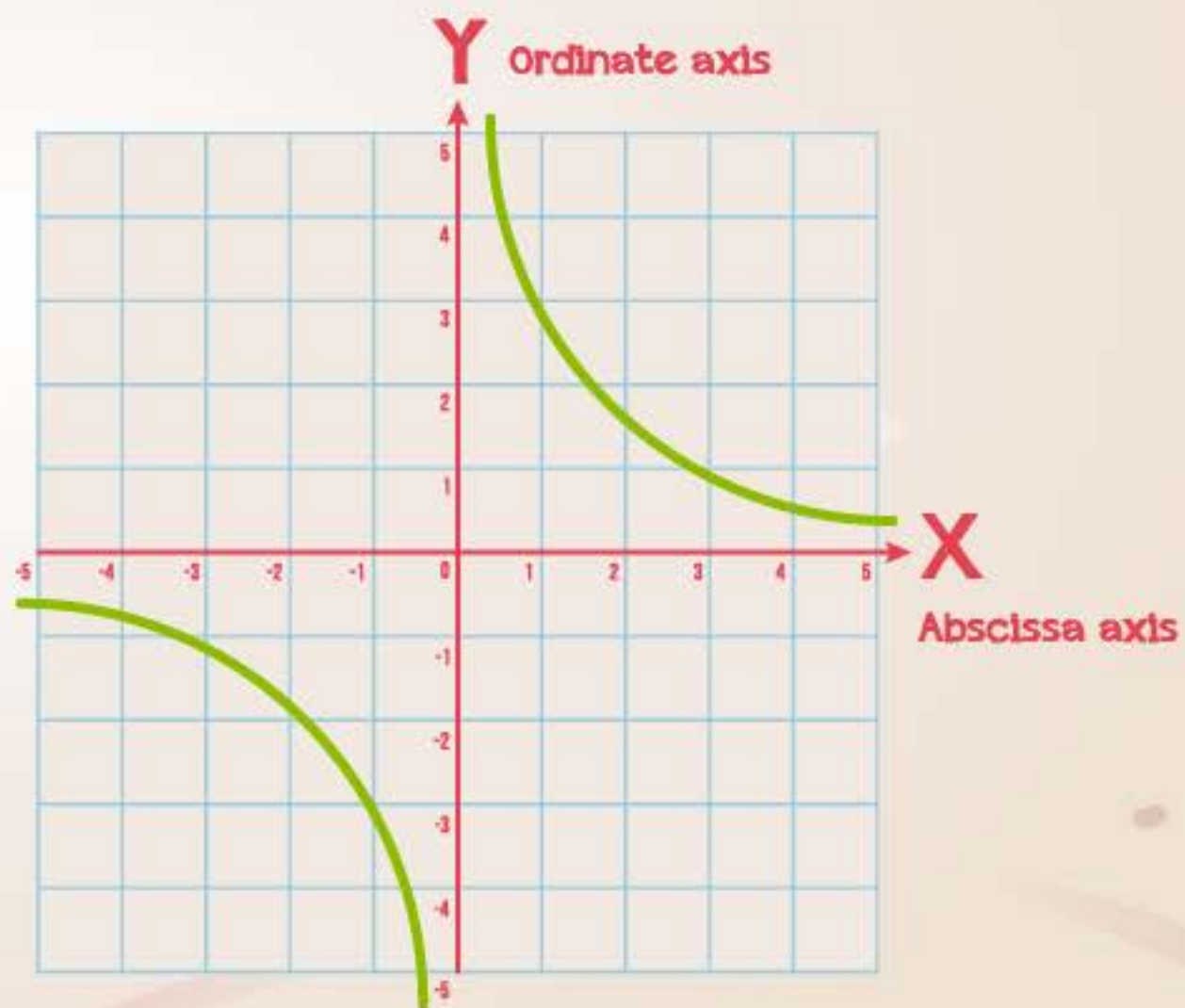
Linear

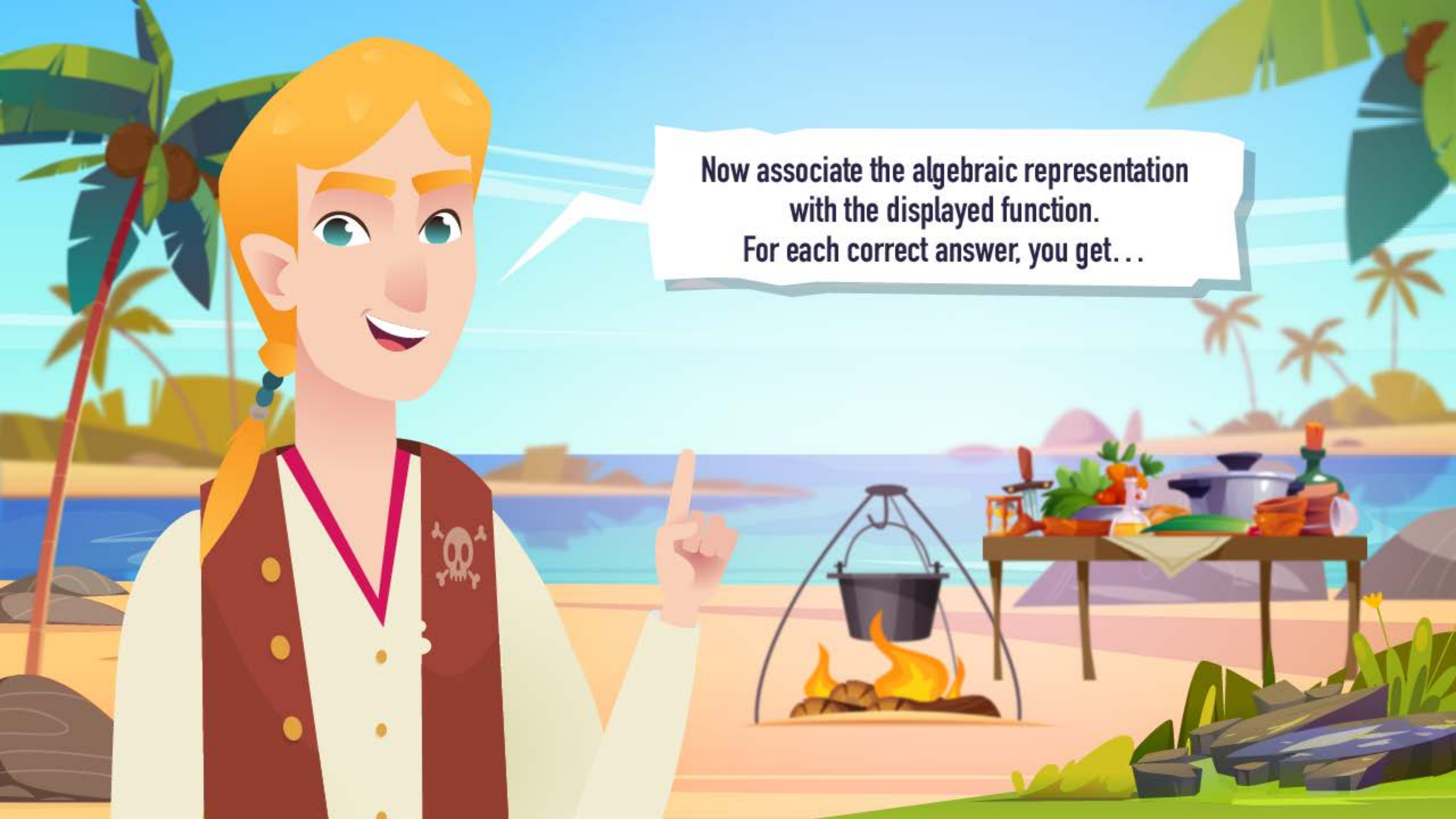
Square

Cube

Inverse

Square roots





Now associate the algebraic representation
with the displayed function.
For each correct answer, you get...



Which algebraic representation corresponds to this function?

Select the correct answer.

$$f(x) = ax + b$$

$$f(x) = x^3$$

$$f(x) = 1/x$$

$$f(x) = x^2$$

$$\sqrt{x} = x$$

Linear



Which algebraic representation corresponds to this function?

Select the correct answer.



$$f(x) = ax + b$$

$$f(x) = x^3$$

$$f(x) = 1/x$$

$$f(x) = x^2$$

$$\sqrt{x} = x$$

Linear

Well done!



Equation
game



I think that you've learned enough to continue your journey.
I wish you good luck for the rest of your sea trip!



Equation
game



**Welcome on board!
Congratulations to you,
you did a great job, and obtained
a Chest for the next Island!**

SELECT OUR NEXT DESTINATION!



1



MONKEY ISLAND

BASICS **STATISTICS - PROBABILITIES**

SCORE **350/000**

COCONUT ISLAND

BASICS **ALGEBRA**

SCORE **400/000**



2



SELECT OUR NEXT DESTINATION!

3

PARADISE ISLAND

BASICS GEOMETRY


SCORE 000/000

WATERFALL ISLAND

BASICS COMMERCIAL ANALYSIS -
FINANCIAL CALCULATIONS

SCORE 000/000

4



Welcome to the Waterfall Island. My name is Blennie
I'm about to open a fishmonger's shop on this island!
Would you mind helping me?


SEAFOOD

Blennie's fresh
fish

Math is useful in many fields. Let's focus on financial calculations. Financial calculations aren't only for people working in finance. You can use financial calculations in every day of life. For example, during the sales to know the final price of your article.



SEAFOOD



Before opening a business, it's important to carry out a commercial analysis. This analysis can be very useful to improve your business, for example.

SEAFOOD



I'm taking out a loan of €2,000 for 5 months at 5%.
How much will I have to pay back in total?

3000

2500

2000



I'm taking out a loan of €2,000 for 5 months at 5%.
How much will I have to pay back in total?

3000

2500

2000



It's alright!



3000

2500

2000



Not really...



3000



2500

2000



Now we need to set our prices, but to do so we need to take a number of factors into account.

Purchase cost

Purchase price

Purchase price with taxes



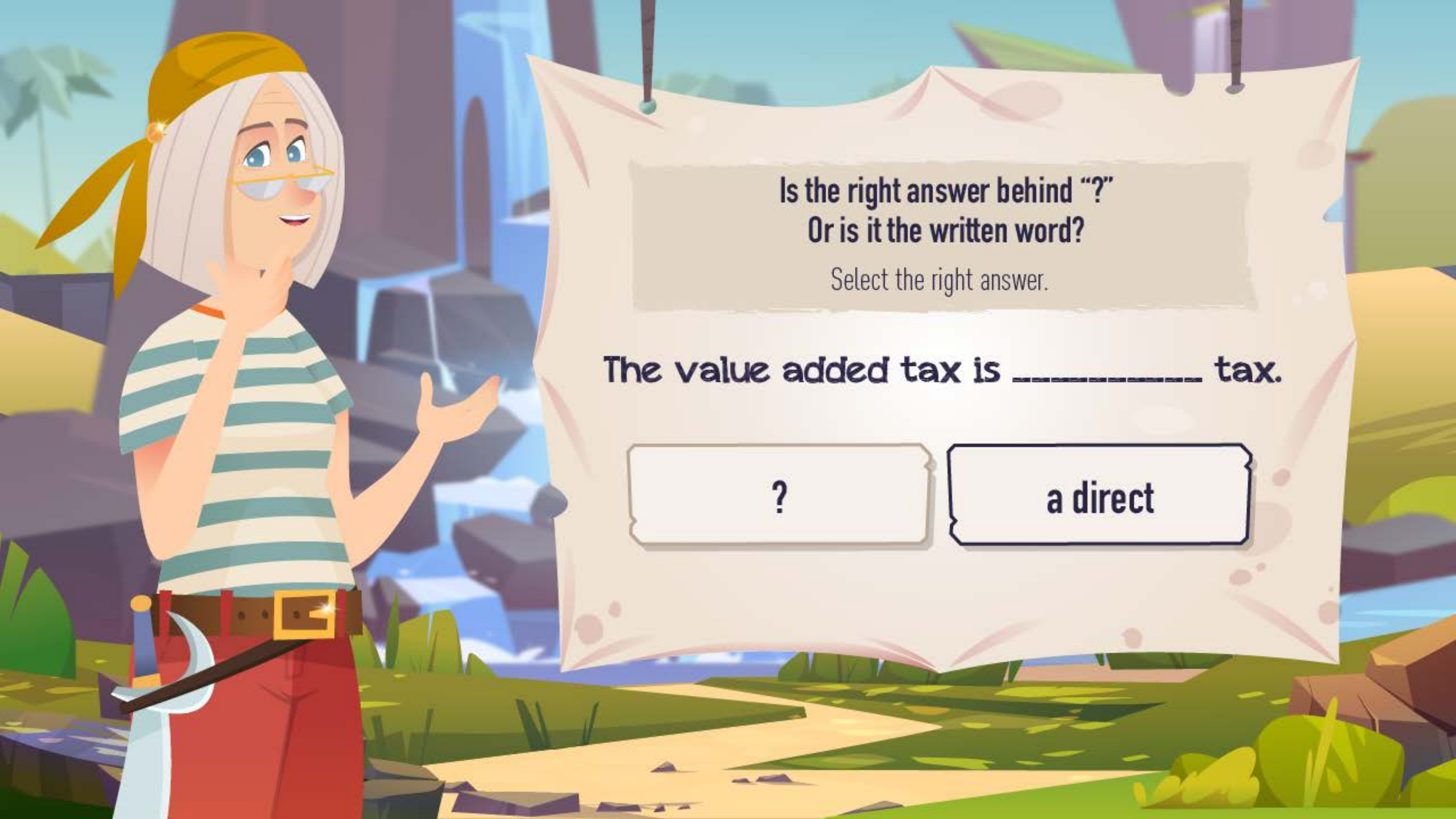
Yes : net purchase price + purchase costs.



Purchase cost

Purchase price

Purchase price with taxes



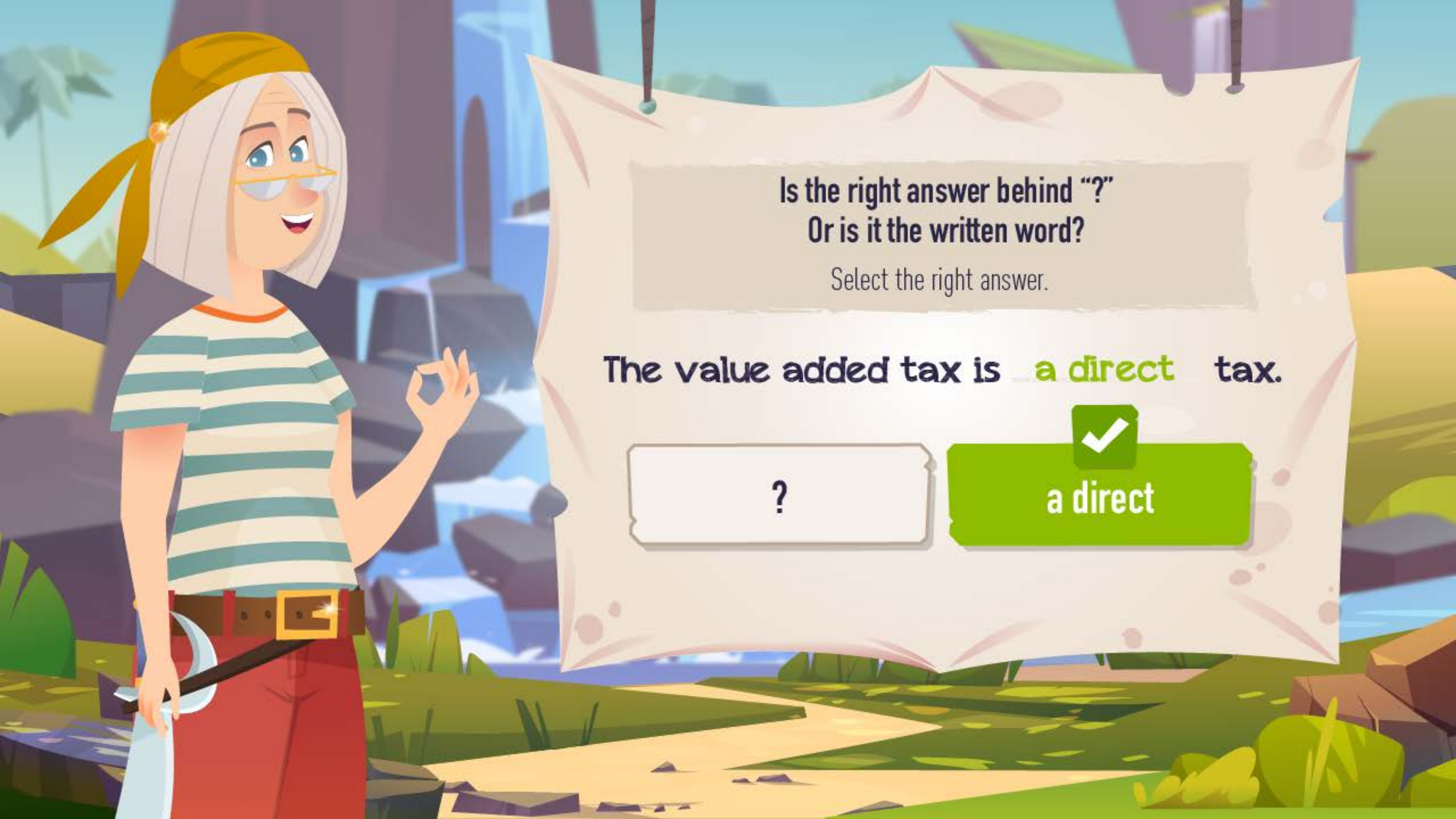
Is the right answer behind “?”
Or is it the written word?

Select the right answer.

The value added tax is _____ tax.

?

a direct



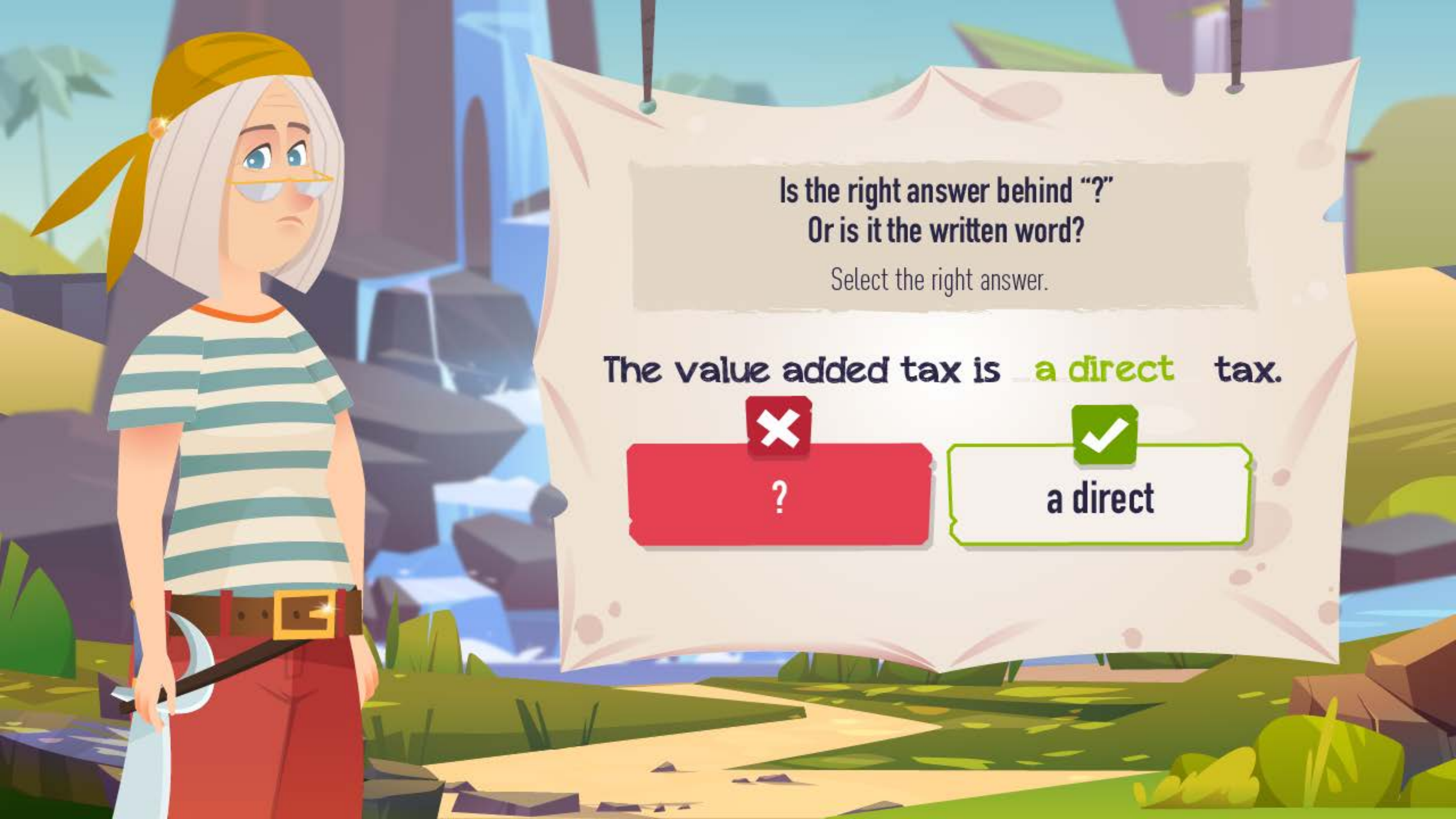
Is the right answer behind “?”
Or is it the written word?

Select the right answer.

The value added tax is **a direct** tax.

?


a direct



Is the right answer behind “?”
Or is it the written word?

Select the right answer.

The value added tax is **a direct** tax.



?



a direct



There are several types of discount, so let's take a look at each of them.

Link each definition to its term.

Price cut

Discount

Rebate



A reduction in the total number of sales made with the same customer, over a given period.

A reduction granted on invoicing according to the quantity purchased, the quality of the customer or a promotional offer.

A reduction exceptionally granted on the initial selling price of a good because of a defect of quality of product or service.



There are several types of discount, so let's take a look at each of them.

Link each definition to its term.

Price cut

A reduction exceptionally granted on the initial selling price of a good because of a defect of quality of product or service.



Discount

A reduction granted on invoicing according to the quantity purchased, the quality of the customer or a promotional offer.



Rebate

A reduction in the total number of sales made with the same customer, over a given period.





Great!

SEAFOOD


Blennie's fresh
fish



Don't forget to calculate our store's profitability.
To do this, perform the following calculation.



gross margin / sales
price excluding taxes



Thank you for your help!
Here, I fished this out the other day, I'll give it to you.
I wish you good luck for the rest of your trip!

**Blennie's fresh
fish**

FOOD



Welcome back on board.
Congratulations to you,
you did a great job.

SELECT OUR NEXT DESTINATION!



1



MONKEY ISLAND

BASICS **STATISTICS - PROBABILITIES**

SCORE **350/000**

COCONUT ISLAND

BASICS **ALGEBRA**

SCORE **400/000**



2



SELECT OUR NEXT DESTINATION!



3

PARADISE ISLAND



BASICS GEOMETRY

SCORE 000/000

WATERFALL ISLAND



BASICS

COMMERCIAL ANALYSIS -
FINANCIAL CALCULATIONS

SCORE

300/000

4

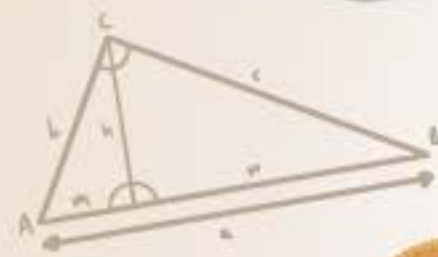



**Welcome to the Paradise Island
My name is Parallelo.**

I'm moving soon. I rented a container to store my stuff before I get my new house. It's hard to fit everything in because I've got so much stuff! But with a few small calculations I should manage.



To do this I used geometry.
Do you know what geometry is?





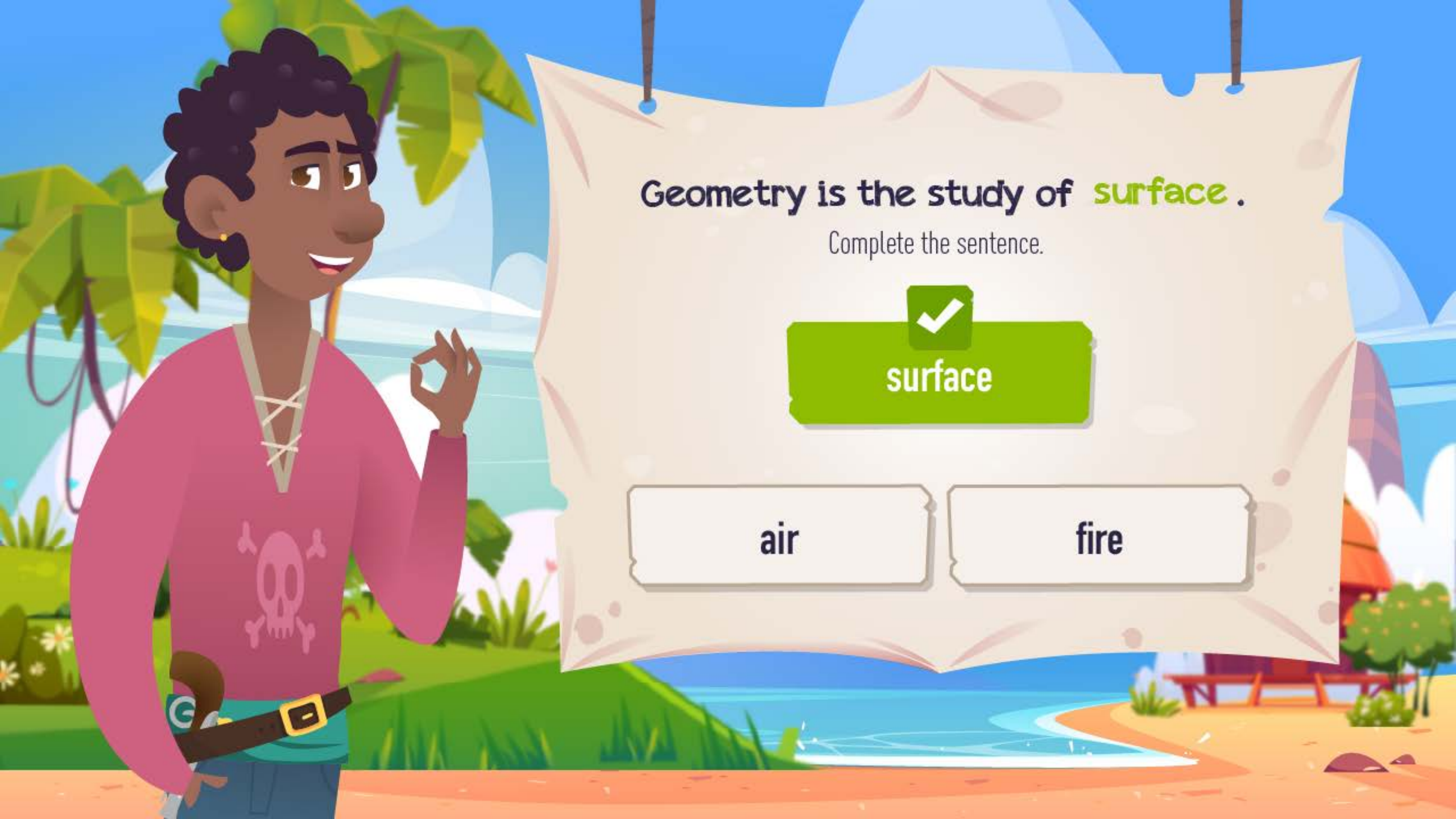
Geometry is the study of _____.

Complete the sentence.

surface

air

fire



Geometry is the study of **surface** .

Complete the sentence.



surface

air

fire



Geometry is the study of **surface**.

Complete the sentence.



surface



air

fire

I used it when I moved house, but you can use it in other areas too. Which ones do you think?



Medicine



Video games



Design

Well, geometry is present in many areas of our lives, and these are just a few examples.



I told you about geometric shapes.
What do you think are the main geometric shapes?



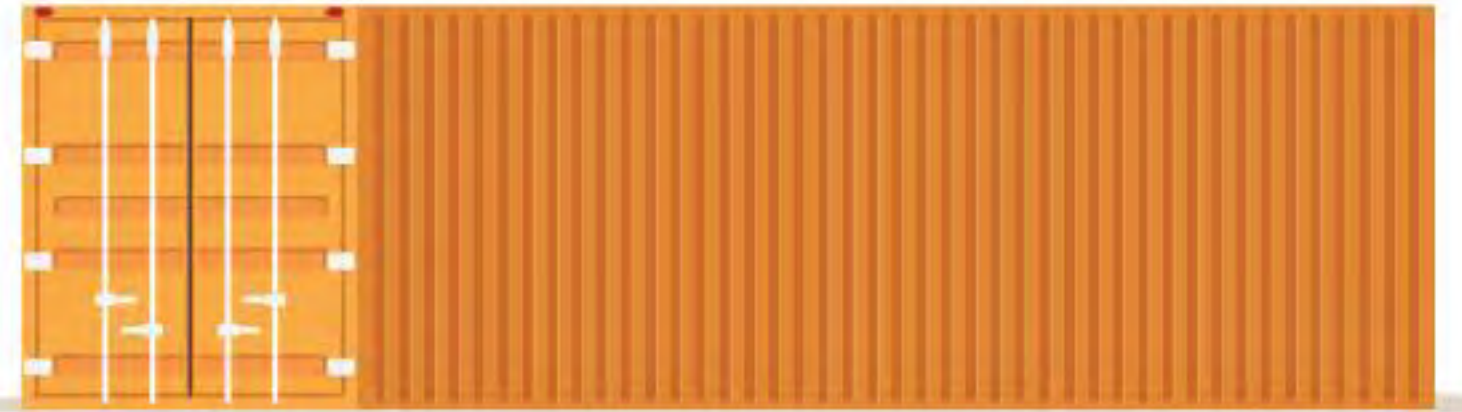
What are the main geometric shapes?




What are the main geometric shapes?



The container I reserved was rectangular.
First I calculated its perimeter to see if it would fit
in the space reserved for me.






A perimeter is a continuous _____
forming the boundary of a closed
geometrical figure.

Complete the sentence.

continuous line

continuous circle

continuous triangle



A perimeter is a continuous **line** forming the boundary of a closed geometrical figure.


Complete the sentence.



continuous line

continuous circle

continuous triangle

A woman with dark curly hair and a pink top is speaking in a tropical setting. In the background, there is a blue sky with a large sun, a blue body of water, and a wooden fence with a thatched roof structure. A white speech bubble contains text.

I told you about my container, but we talk about the perimeter in many areas, the perimeter of your garden, the perimeter of a room...

In the next screen, find the calculation of the perimeter for each shape.

Perimeter

Here are some formulas, combine them with the correct shape.



$$2 \times \pi \times r$$

$$4xa$$

$$2x (h+w)$$



Perimeter

Here are some formulas, combine them with the correct shape.



$$2 \times \pi \times r$$



$$4 \times a$$




$$2 \times (h + w)$$



A woman with dark skin and curly hair, wearing a pink top, is pointing her right index finger towards a large orange container in the foreground. The background features a tropical landscape with a blue sky, green hills, a blue body of water, and a traditional orange-roofed structure. A white speech bubble with a torn edge contains text.

After calculating the perimeter of my container, I calculated its surface area.




Surface area is defined as _____
taken up by a flat (2-D) surface or shape
of an object.

Complete the sentence.

the total space

the hide space

the air space



Surface area is defined as **the total space** taken up by a flat (2-D) surface or shape of an object.


Complete the sentence.



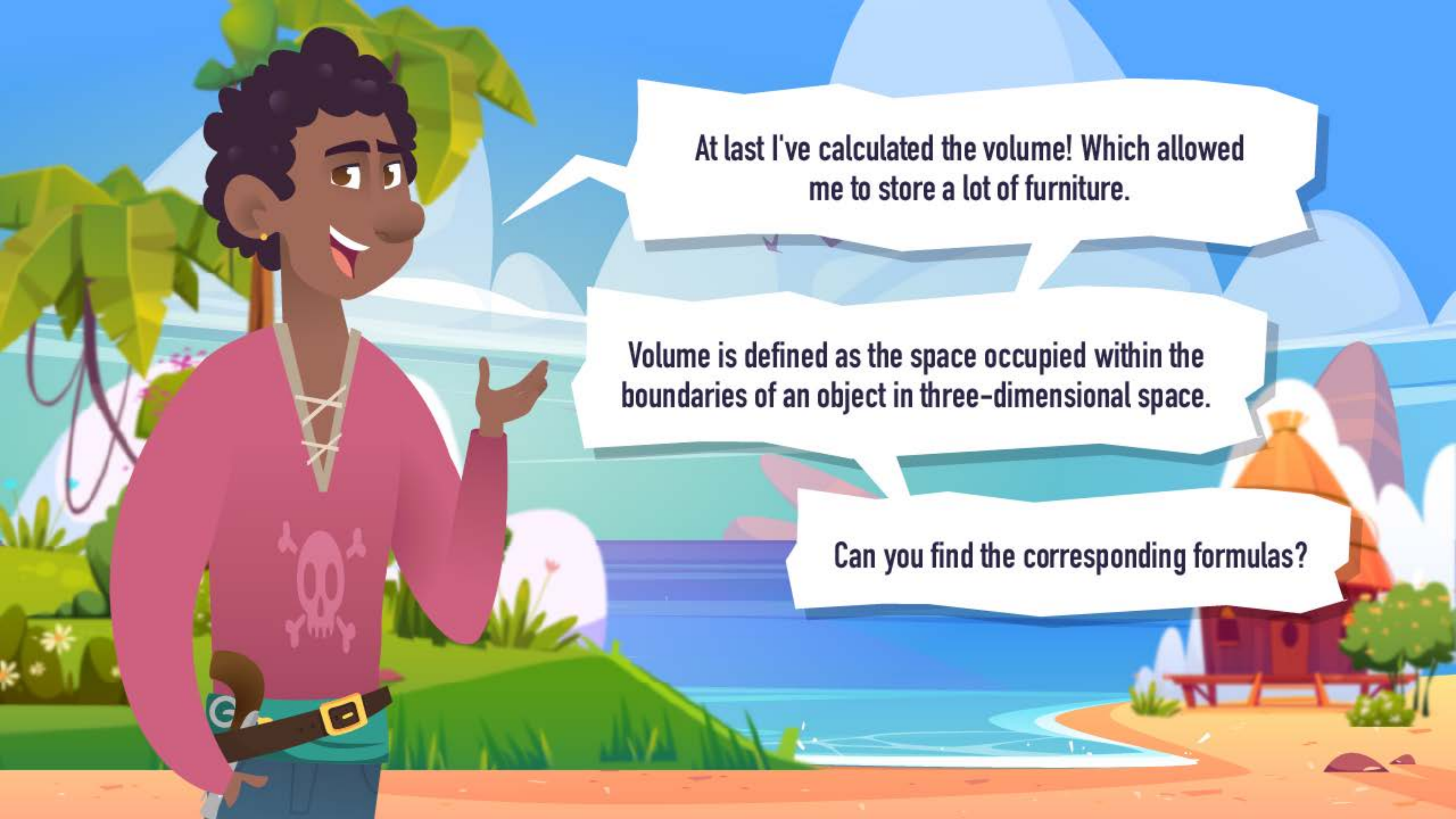
the total space

the hide space

the air space



People can use the term surface area when they speak about the surface area of a room or of a country, for example. Find the formula for each figure.



At last I've calculated the volume! Which allowed me to store a lot of furniture.

Volume is defined as the space occupied within the boundaries of an object in three-dimensional space.

Can you find the corresponding formulas?

Volume

Here are some formulas, combine them with the correct shape.



$$\left(\frac{4}{3}\right) \times \pi \times r^3$$

$$\pi \times r^2 \times h$$

$$\left(\frac{\pi \times r^2 \times h}{3}\right)$$

$$a^3$$

Volume

Here are some formulas, combine them with the correct shape.



$$\left(\frac{4}{3}\right) \times \pi \times r^3$$



$$\pi \times r^2 \times h$$



$$\left(\pi \times r^2 \times h\right) / 3$$



$$a^3$$





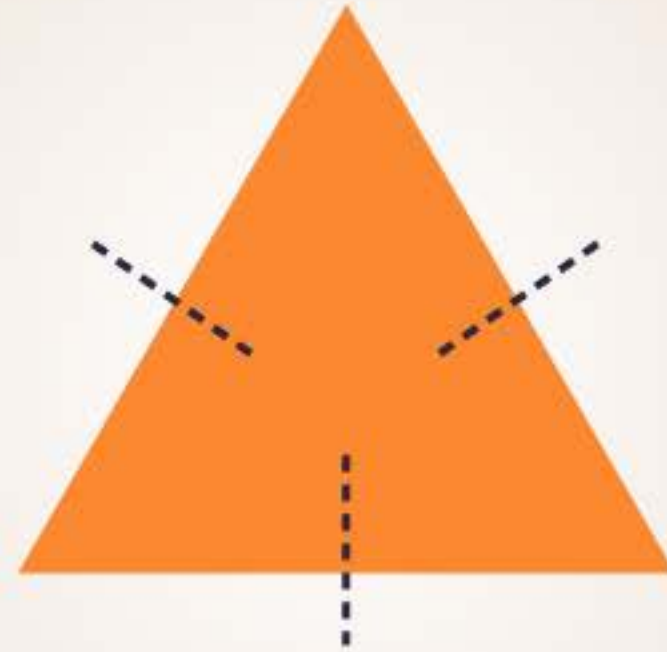
Well done, thanks to all these calculations you'll be able to prepare your future move like a pro.

We have just seen the calculation in geometry.
Now, let's focus on the triangles.

I almost forgot one shape: triangles!

Triangles

Do you think this triangle is equilateral? Isoceles? Right ?



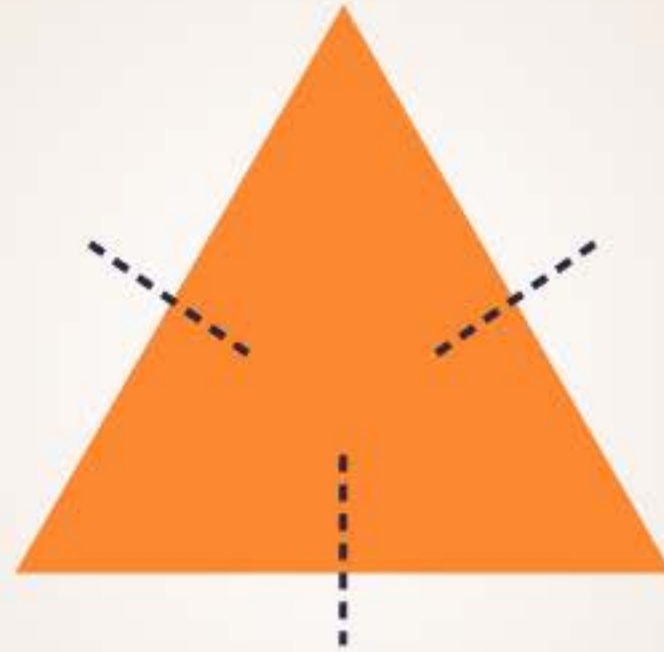
Equilateral

Right

Isoceles

Alright ! An equilateral triangle had three sides of equal length.

Do you think this triangle is equilateral? Isoceles? Right ?



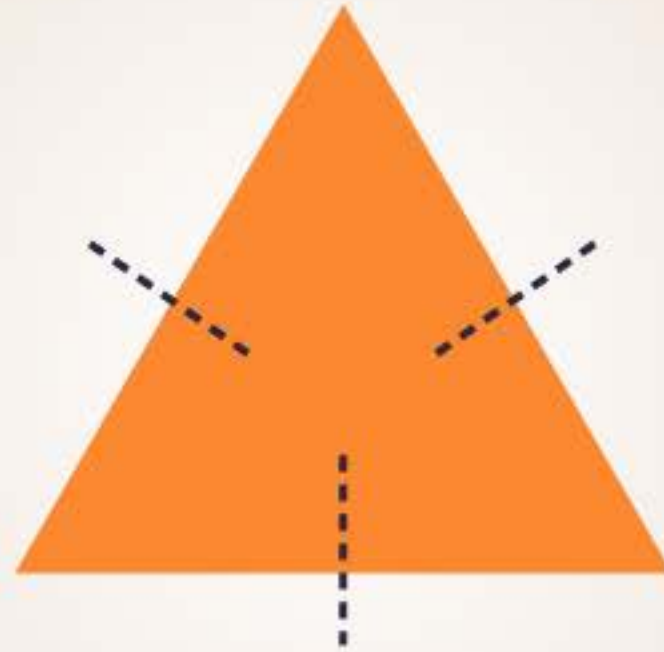
Equilateral

Right

Isoceles

Not really. An equilateral triangle had three sides of equal length.

Do you think this triangle is equilateral? Isoceles? Right ?



Equilateral

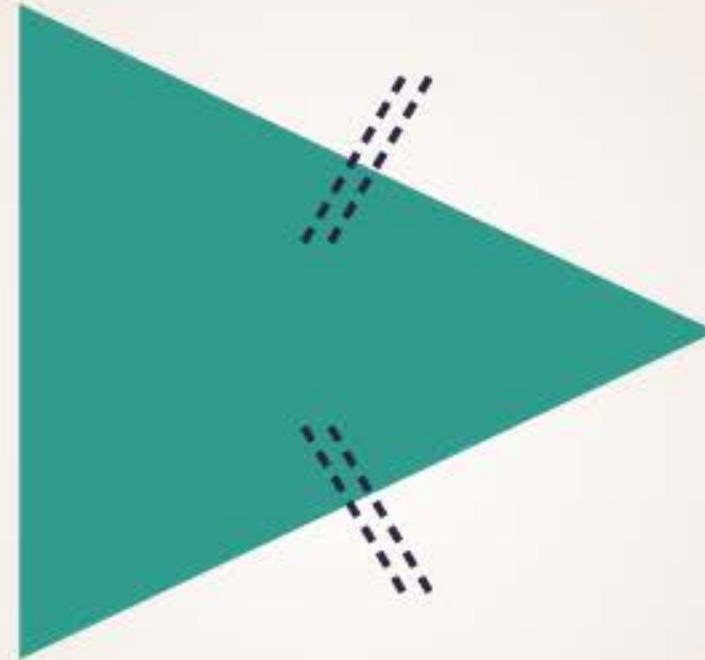


Right

Isoceles

Triangles

Do you think this triangle is equilateral? Isosceles? Right ?

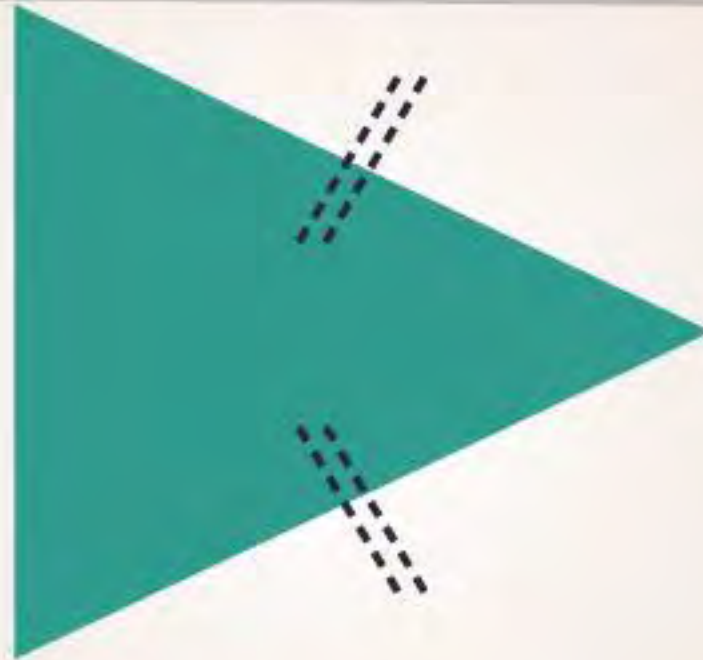


Equilateral

Right

Isosceles

An isosceles triangle has two sides of equal length. The two angles of the principal base of an isosceles triangle are equal. The isosceles triangle has an axis of symmetry that passes through its principal vertex and is the bisector of the principal base.



Equilateral

Right

✓
Isoceles



First of all, Thales theorem allows to determine
if two lines are ...

Parallel

Perpendicular



First of all, Thales theorem allows to determine
if two lines are ...

Parallel



Perpendicular



First of all, Thales theorem allows to determine
if two lines are ...

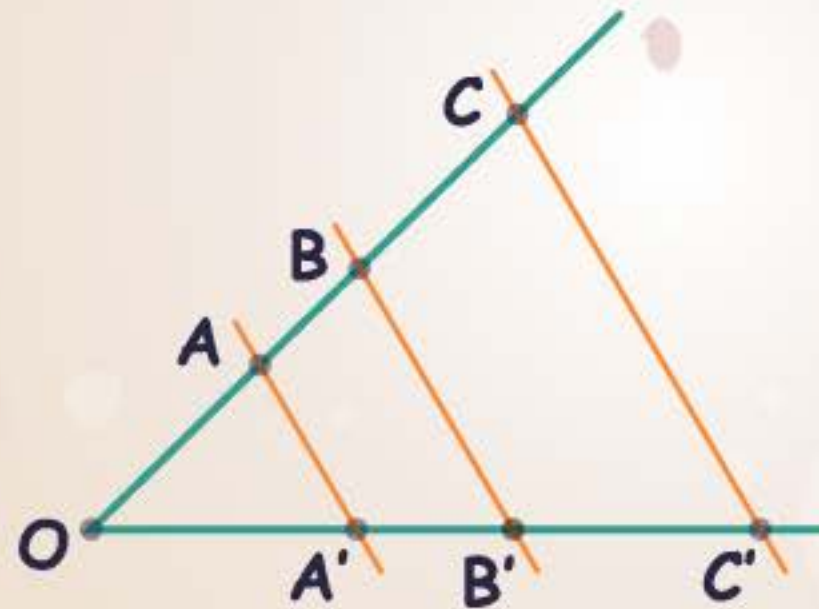
Parallel



Perpendicular

It states that if three parallel straight lines intersect two sides of a triangle, then the lengths of the segments cut on these sides are proportional.

Thales' Theorem



$$\frac{\overline{AB}}{\overline{A'B'}} = \frac{\overline{BC}}{\overline{B'C'}}$$

$$\frac{\overline{OA}}{\overline{AA'}} = \frac{\overline{OC}}{\overline{CC'}}$$

Triangles

Do you think this triangle is equilateral? Isosceles? Right ?



Equilateral

Right

Isosceles

Yes it's the right triangle !

Triangles

Do you think this triangle is equilateral? Isoceles? Right ?



Equilateral

Right

Isoceles

No, it is not the good triangle.

Triangles


Do you think this triangle is equilateral? Isosceles? Right ?



Equilateral

Right

Isosceles



A right triangle has _____

_____ •
Complete the sentence.

2 perpendicular sides and a right angle

1 perpendicular side and a right angle

1 perpendicular side and 2 right angles



Yes!

A right triangle has **2 perpendicular sides and a right angle**.

Complete the sentence.

2 perpendicular sides and a right angle ✓

1 perpendicular side and a right angle

1 perpendicular side and 2 right angles



Not really...

A right triangle has **2 perpendicular sides and a right angle**.

Complete the sentence.

2 perpendicular sides and a right angle



1 perpendicular side and a right angle

1 perpendicular side and 2 right angles





In the above triangle, the side [BC] of triangle ABC is called the

.....
Complete the sentence.

hypotenuse of the triangle

sinus of the triangle

cosinus of the triangles



In the above triangle, the side [BC] of triangle ABC is called the **hypotenuse of the triangle**.

Complete the sentence.

hypotenuse of the triangle ✓

sinus of the triangle

cosinus of the triangles



In the above triangle, the side [BC] of triangle ABC is called the **hypotenuse of the triangle**.

Complete the sentence.

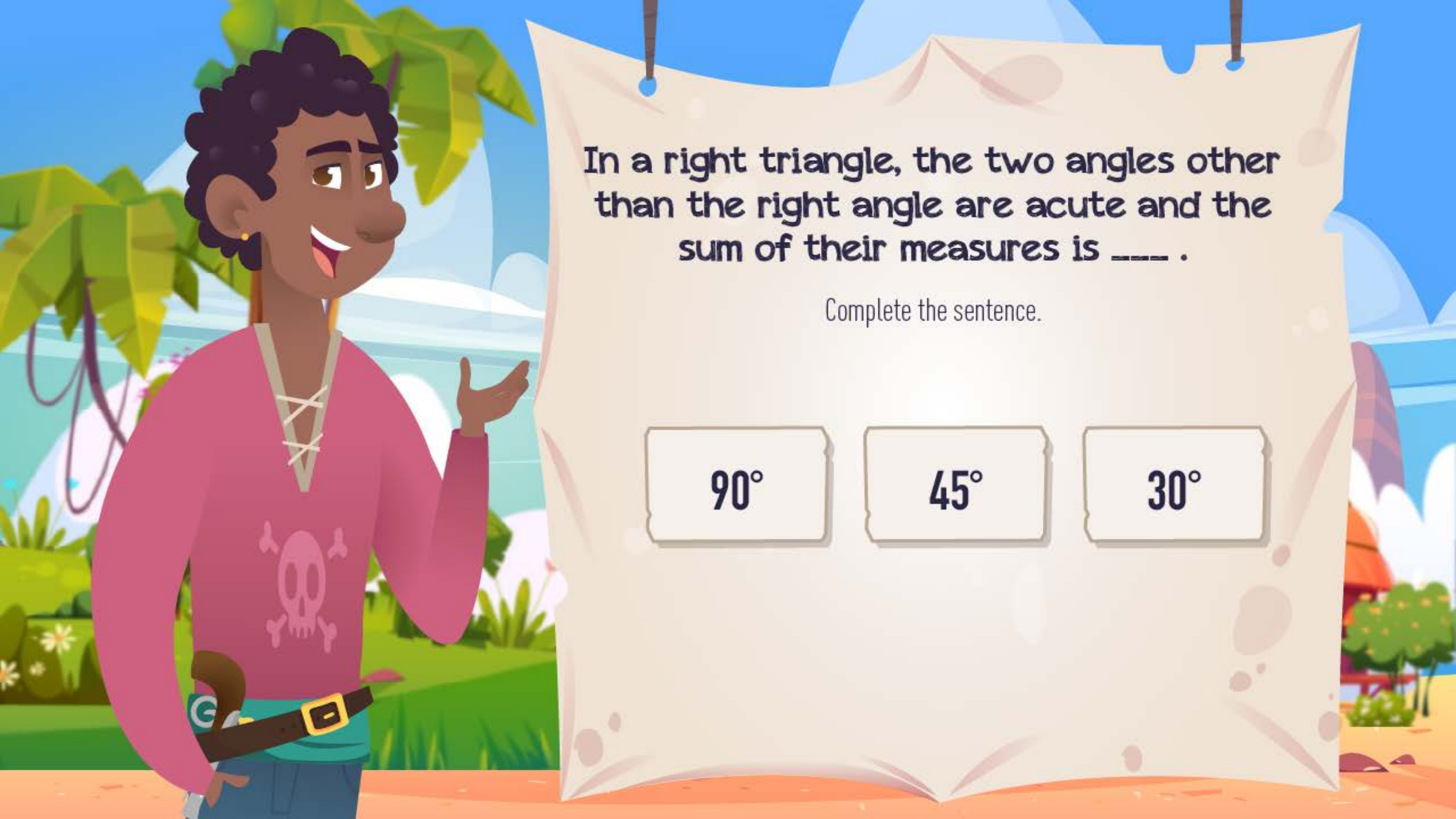
hypotenuse of the triangle



sinus of the triangle



cosinus of the triangles




In a right triangle, the two angles other than the right angle are acute and the sum of their measures is ____ .

Complete the sentence.

90°

45°

30°



In a right triangle, the two angles other than the right angle are acute and the sum of their measures is 90° .

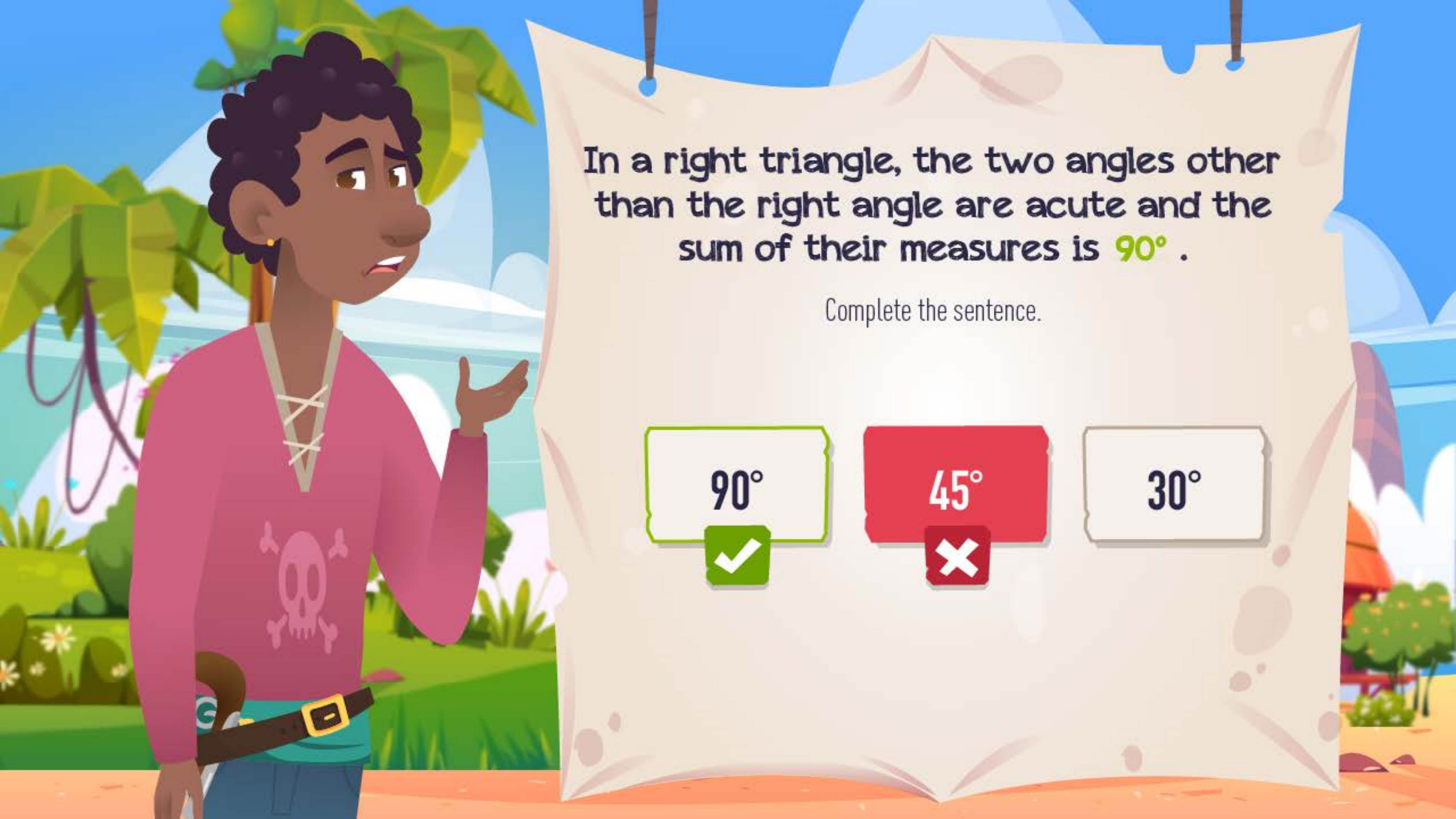
Complete the sentence.

90°



45°

30°



In a right triangle, the two angles other than the right angle are acute and the sum of their measures is 90° .

Complete the sentence.

90°



45°



30°

What is the correct Pythagorean equality?

a

c



b

$$a^2 + b^2 = c^2$$

$$c^2 + b^2 = a^2$$

$$a^2 + c^2 = b^2$$

What is the correct Pythagorean equality?

a

c



b

$a^2 + b^2 = c^2$



$c^2 + b^2 = a^2$

$a^2 + c^2 = b^2$

What is the correct Pythagorean equality?

a



c

b


$$a^2 + b^2 = c^2$$



$$c^2 + b^2 = a^2$$

$$a^2 + c^2 = b^2$$



A woman with dark skin and curly hair, wearing a pink top, is giving a thumbs up. In the background, there is a tropical landscape with a blue sky, green hills, a blue body of water, and a small hut with a conical roof. A treasure chest is visible in the foreground, and a speech bubble contains text.

Well done ! Thanks to your help I was able to move
into my new home without any problems.
There's just this chest that didn't fit inside my house,
so I'm giving it to you as a reward.

SELECT OUR NEXT DESTINATION!



1



MONKEY ISLAND  

BASICS **STATISTICS - PROBABILITIES**

SCORE **350/000**

COCONUT ISLAND  

BASICS **ALGEBRA**

SCORE **400/000**



2

SELECT OUR NEXT DESTINATION!



3

PARADISE ISLAND



BASICS GEOMETRY

SCORE 500/000

WATERFALL ISLAND



BASICS


COMMERCIAL ANALYSIS -
FINANCIAL CALCULATIONS

SCORE

300/000

4





Welcome back!
**You've now visited all the islands
and collect all the chests.**

I got your results, well done!
Welcome to our company.

