



Programavimo valanda 2021

Hour of Code2021

2021 gruodžio 10-25

Apie Hour of Code

“The 'Hour of Code™' is a nationwide initiative by Computer Science Education Week [csedweek.org] and Code.org [code.org] to introduce millions of students to one hour of computer science and computer programming.”

//CSEdWeek and [Code.org](https://code.org)//

„Programavimo (Kodo) valanda“ yra pasaulinė [Computer Science Education Week](https://csedweek.org) ir „[Code.org](https://code.org)“ iniciatyva, kuria siekiama supažindinti milijonus studentų su IKMT programavimu per vieną valandą.



Šimtmečio programavimo valanda (2017 m.)



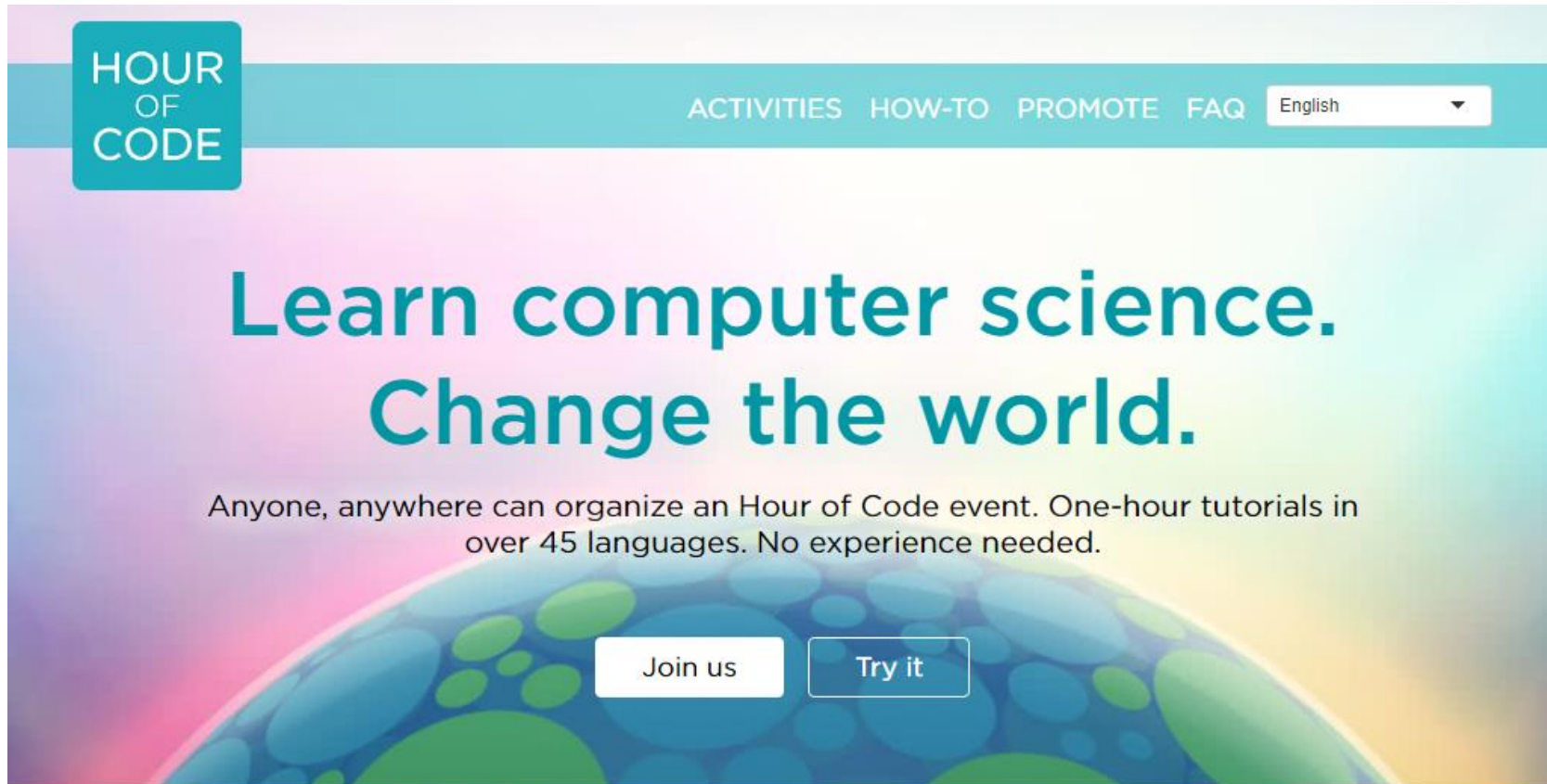
<http://www.programavimovalanda.lt/>



*Siūlomos veiklos
2021 m. gruodžio 10-25 d.*

Pagrindinė projekto svetainė

HOUR
OF
CODE



835,198,455 served.

A global movement in 180+ countries.
46,762 events registered in 2019.

<https://hourofcode.com/us/en>

Q&A

code.org svetainė

HOUR
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CODE

The screenshot shows the Hour of Code website. At the top is a teal navigation bar with the 'CODE' logo on the left and links for 'Learn', 'Teach', 'Projects', 'Stats', 'Help Us', and 'About' in the center. On the right side of the bar are buttons for 'Create' (with a dropdown arrow), 'Sign in', and a help icon. Below the navigation bar is a large hero section with a dark blue background and a stylized planet graphic on the right. The main heading 'Hour of Code Activities' is in large white font. Below it, text encourages users to try a one-hour tutorial in over 45 languages and join millions of students and teachers in over 180 countries. A link 'Go beyond an hour' is provided for those who want to keep learning. Below this, a graduation cap icon is followed by the text 'Teachers: Host an hour or read the How-To Guide'. A filter bar below the hero section allows users to select by grade ('All grades', 'Pre-reader', 'Grades 2-5', 'Grades 6-8', 'Grades 9+') and skill level ('Beginner', 'Comfortable'). On the left, there are dropdown menus for 'Sort by' (set to 'Recommended') and 'Created by' (set to 'All'). The main content area displays three activity cards: the first features Scratch characters, the second shows a woman with a globe and a butterfly, and the third is a Minecraft-themed activity.

CODE

Learn Teach Projects Stats Help Us About

Create Sign in ?

Hour of Code Activities

Try a one-hour tutorial designed for all ages in over 45 languages.
Join millions of students and teachers in over 180 countries starting
with an Hour of Code.

Want to keep learning? [Go beyond an hour](#)

Teachers: [Host an hour](#) or [read the How-To Guide](#)

All grades Pre-reader Grades 2-5 Grades 6-8 Grades 9+ Beginner Comfortable

Sort by
Recommended

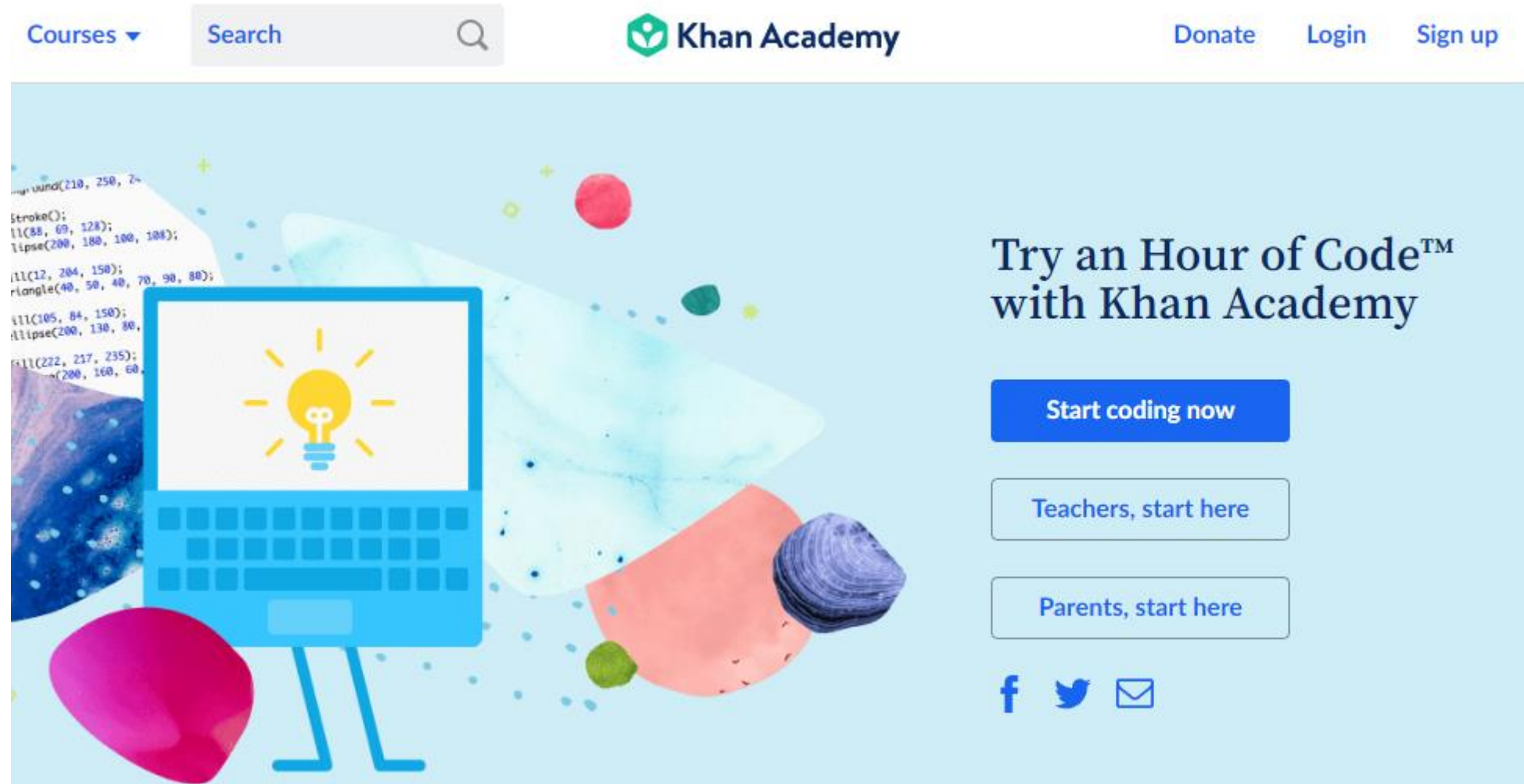
Created by
All

Classroom

<https://code.org/learn>

Khan Academy svetainė

HOUR
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CODE



The image shows the Khan Academy website's 'Hour of Code' landing page. At the top, there is a navigation bar with 'Courses' (with a dropdown arrow), a 'Search' input field with a magnifying glass icon, the 'Khan Academy' logo, and links for 'Donate', 'Login', and 'Sign up'. The main content area features a large, colorful illustration on the left. It depicts a blue laptop with a yellow lightbulb icon on its screen, standing on two blue legs. To the left of the laptop is a pink, teardrop-shaped object. To the right is a red, teardrop-shaped object with a blue, textured, shell-like top. The background of the illustration is light blue with various colored dots and a faint, abstract shape. On the far left of the illustration, there is a snippet of code:

```
und(210, 250, 70);  
Stroke();  
ll(88, 69, 128);  
lipse(200, 180, 100, 100);  
  
ll(12, 204, 150);  
rtriangle(40, 50, 40, 70, 90, 80);  
  
ll(105, 84, 150);  
lipse(200, 130, 80,  
  
ll(222, 217, 235);  
ipse(200, 160, 60,
```

On the right side of the main content area, the text 'Try an Hour of Code™ with Khan Academy' is displayed. Below this text are three buttons: a blue 'Start coding now' button, and two white buttons with blue borders labeled 'Teachers, start here' and 'Parents, start here'. At the bottom right, there are icons for Facebook, Twitter, and an email envelope.

<https://www.khanacademy.org/hourofcode>

JS grafinių komandų taikymo valanda

HOUR
OF
CODE

We have many ways to do Hour of Code at Khan Academy.
Choose the one that suits you best!



JAVASCRIPT

Hour of Drawing with Code

Learn how to program drawings using JavaScript by designing your very own snowman. Try it on your own or with your class!


Ages 8+

Modern web browsers

Start drawing with code

Veikly medis

HOUR
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Computing > Hour of Code > Drawing with code

▶ Welcome to our Hour of Code™!

📄 Learning coding on Khan Academy

▶ Making drawings with code

📄 Quick tip: number scrubbing

★ Challenge: Simple snowman

▶ Drawing more shapes with code

★ Challenge: Waving snowman

```
// It's a clock. Nothing more, nothing less.
// Creates a clock for later display.
// x, y, w defines the bounding square.
var Clock = function(x, y, w)


  this.x = x;
  this.y = y;
  this.w = w;


  // Color used for the clock face
  this.face = color(255, 255, 255);

  // Stroke color
  this.stroke = color(107, 88, 107);

  // Color used for the hour and minute hands
  this.handFill = color(61, 61, 61);

  // Color used for the second hand
  this.secondHandFill = color(240, 19, 48);
```



 **Khan Academy**

Welcome to our Hour of Code™!

[About](#) [Transcript](#)


The 'Hour of Code' is a nationwide initiative by [Computer Science Education Week](#) and [Code.org](#) to introduce millions of students to one hour of computer science and computer programming.

Projektas Senis- besmegenis


- ★ Challenge: Sunny snowy day
- 📄 Quick tip: Use the docs!
- 📄 Pick a drawing project!
- 🚀 Project: Super snowman
- 🚀 Project: Wild animal
- 🚀 Project: Self portrait
- 📄 Code beyond the hour


Programuojame/piešiame senj besmegenį


HOUR
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Computing > Hour of Code > Drawing with code


 Welcome to our Hour of Code™!


 Learning coding on Khan Academy

 Making drawings with code

 Quick tip: number scrubbing

 **Challenge: Simple snowman**

 Drawing more shapes with code

 Challenge: Waving snowman

Challenge: Simple snowman

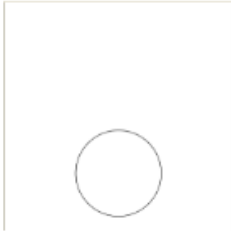
[The bottom](#)

In this challenge, you'll draw a snowman using the `ellipse()` command.

Start off by making a circle, for the bottom of the snowman, with an `ellipse()` command. This should be the first `ellipse()` command in your program.

We've suggested some good values for the `ellipse()` command in the hint code, but you can change those numbers around, as long as the bottom of your snowman is a circle near the bottom of the canvas and it's not too small!

Hint [What's this?](#) [\(Report a problem\)](#)



```
// bottom circle:  
ellipse(200, 300, 150, 150);
```

1

Grafikos vaizdų programavimas su JS

HOUR
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CODE

Courses ▾

Search



Khan Academy

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Drawing with code • Project: Super snowman • My Projects

Spin-off of "Project: Super snowman"

Congratulations on learning how to draw and color shapes by calling different functions! Now you're going to take the snowman you've been working and add more: give the snowman a face, color it crazy colors, make the snowman look like you, make the snowman look like a hybrid animal, give the snowman clothing, make a snowman - whatever sounds the most fun to you.

You can copy/paste the code from your challenges into this project, or start with this basic starter code.

If you have paper handy (especially [grid paper](#)), try drawing out your ideas first. Then check the [documentation](#) below to remember how to use the functions you learned or even to use new functions that you didn't learn yet. If you get stuck, "Request Help" under your program or ask your classmates for ideas.

Tip: use [arc\(\)](#) for smiles ([example](#)), [triangle\(\)](#) for carrot noses ([example](#)), and try [bezier\(\)](#) for fancy scarves ([example](#)).

```
1 // simple snowman
2 ellipse(200, 300, 150, 150);
3 ellipse(200, 200, 100, 100);
4 ellipse(200, 120, 75, 75);
5
```

<https://www.khanacademy.org/computing/hour-of-code/hour-of-drawing-code/pp/project-super-snowman>

JS grafika



`rect(x, y, w, h)`



`triangle(x1, y1, x2, y2, x3, y3)`



`point(x, y)`



`bezier(x1, y1, cx1, cy1, cx2, cy2, x2, y2)`



`image(image, x, y, width*, height*)`



`ellipse(x, y, w, h)`



`line(x1, y1, x2, y2)`



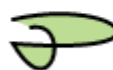
`arc(x, y, w, h, start, stop)`



`quad(x1, y1, x2, y2, x3, y3, x4, y4)`



`beginShape() / endShape() / vertex()`



`bezierVertex()`



`curveVertex()`

See also: `strokeJoin`, `curveTightness`

`background(r, g, b)`
Set the background color

`noFill()`
Turn off fill for shapes

`strokeWeight(thickness)`
Change the thickness of lines and outlines

`color(r, g, b)`
Store a color in a variable

`lerpColor(c1, c2, amount)`
Find color between 2 colors

See also: `colorMode`, `red`, `green`, `blue`, `alpha`, `hue`, `saturation`, `brightness`

`fill(r, g, b)`
Set the fill color for shapes

`stroke(r, g, b)`
Set the outline color for shapes

`noStroke()`
Turn off outlines for shapes

`blendColor(c1, c2, MODE)`
Blend two colors together

`text(text, x, y)`
Draw some text

`textSize(size)`
Change the size of text

See also: `textWidth`, `textAscent`, `textDescent`, `textLeading`, `textAlign`

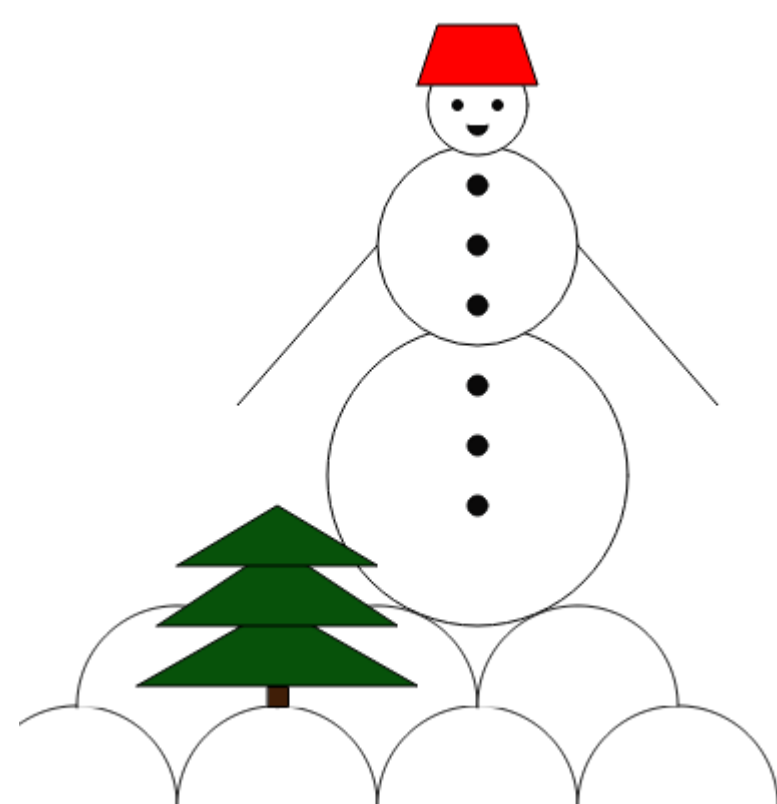
`textFont(font, size*)`
Changes the font of text

Užduotis



Sukurkite programą, kurios rezultatas būtų spalvotas žiemos vaizdelis:

- Senis besmegenis (būtų šaunu – su šluota)
- Bent trys eglės
- Pusnys



Komandos, kurių gali prireikti

line(x1,y1,x2,y2);	Linija
triangle(x1,y1,x2,y2,x3,y3);	Trikampis
rect(x,y,plotis,aukštis);	Stačiakampis
ellipse(x,y,plotis,aukštis);	Elipsė
arc(x,y,plotis,aukštis,pradžia,pabaiga);	Lankas
quad(x1,y1,x2,y2,x3,y3,x4,y4);	Trapecija
fill(r,g,b)	Spalva

Taikymo pavyzdžiai

```
arc(50,400, 100, 100,180,360);
```

```
ellipse(250,235,150,150);
```

```
fill(10, 9, 9);.
```

```
quad(220,40,280,40,270,10,230,10);
```

```
line(200,120,130,200);
```

```
triangle(80,340,220,340,150,300);
```

```
rect(145,340,10,10);
```

Kodo pavyzdys

```
fill(235, 238, 245);  
arc(50,400, 100, 100,180,360);  
arc(150,400, 100, 100,180,360);  
arc(250,400, 100, 100,180,360);  
arc(350,400, 100, 100,180,360);  
arc(100,350, 100, 100,180,360);  
arc(200,350, 100, 100,180,360);  
arc(300,350, 100, 100,180,360);  
fill(223, 229, 250);  
ellipse(250,235,150,150);  
ellipse(250,120,100,100);  
ellipse(250,50,50,50);  
fill(10, 9, 9);.  
.. /pratęskite
```

```
ellipse(250,190,10,10);  
ellipse(250,150,10,10);  
ellipse(250,120,10,10);  
ellipse(250,90,10,10);  
ellipse(240,50,5,5);  
ellipse(260,50,5,5);  
arc(250,60,10,10,0,180);  
fill(255, 0, 0);  
quad(220,40,280,40,270,10,230,10);  
line(200,120,130,200);  
line(300,120,370,200);  
fill(7, 82, 10);  
triangle(80,340,220,340,150,300);  
triangle(90,310,210,310,150,270);  
triangle(100,280,200,280,150,250);  
fill(64, 30, 7);  
rect(145,340,10,10);  
... /pratęskite
```

Sèkmès!