

**This is CS50.**

# Today

Welcome

Course Structure

Scratch

PART ONE

**Welcome**

**2/3**

of CS50 students have never taken CS before

what ultimately matters in this course is not so much where you end up relative to your classmates but where you end up relative to yourself when you began

# Getting Started

- Browse website at [cs50.harvard.edu](https://cs50.harvard.edu)
- Read syllabus at [cs50.harvard.edu/syllabus](https://cs50.harvard.edu/syllabus)
- Read FAQs at [cs50.harvard.edu/faqs](https://cs50.harvard.edu/faqs)

# Expectations

- Watch eleven lectures
- Attend eleven class meetings via Zoom
- Complete ten labs
- Solve ten problem sets
- Take nine quizzes
- Take one test
- Design and implement a final project

# Grades

Problem Sets	40%
Quizzes	10%
Labs	10%
Test	20%
Final Project	10%
Attendance (at classes)	10%



# Grades

- SAT/UNS
- Letter Grade

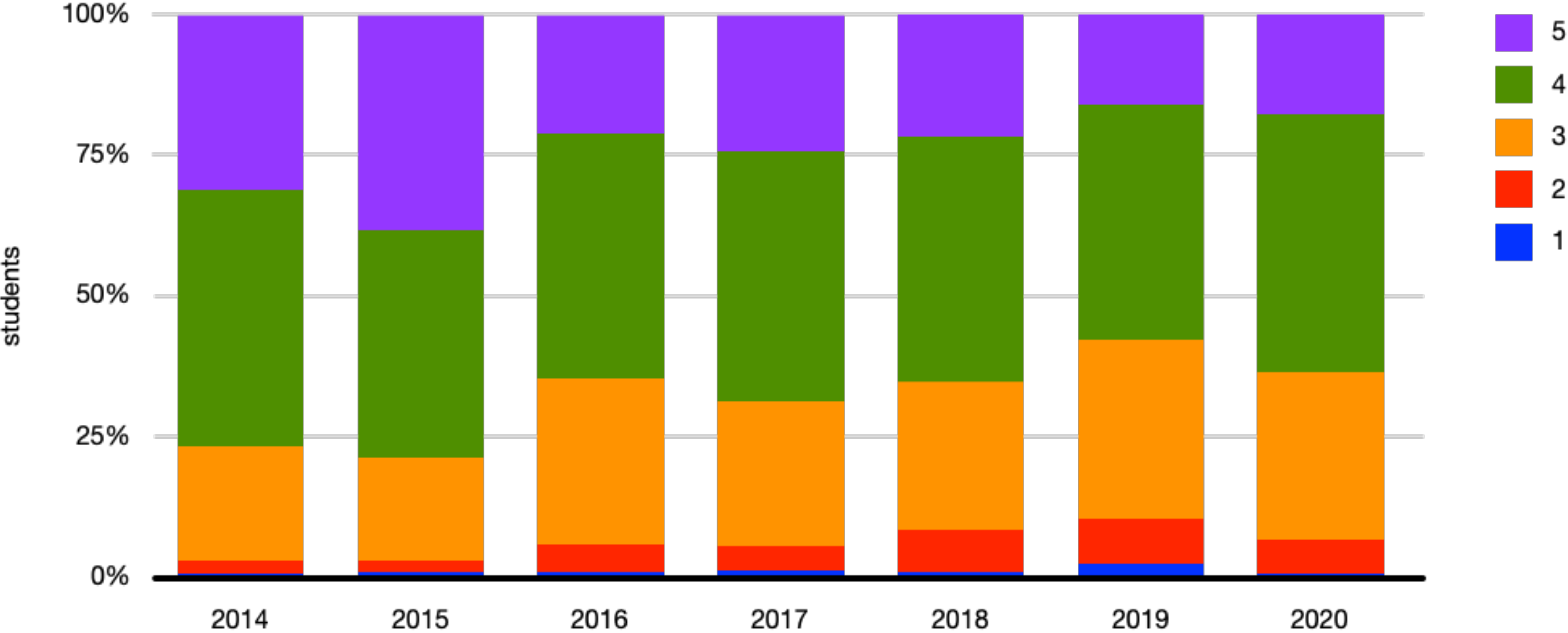
# Grades

- CS concentrators may take CS50 SAT/UNS.
- First years may take both CS50 and a Freshman Seminar SAT/UNS.
- You can take CS50 (SAT/UNS or for letter grade) to fulfill the Gen Ed Science distribution requirement or QRD.
- See FAQs on [cs50.harvard.edu](https://cs50.harvard.edu) for concentrations that require letter grades.

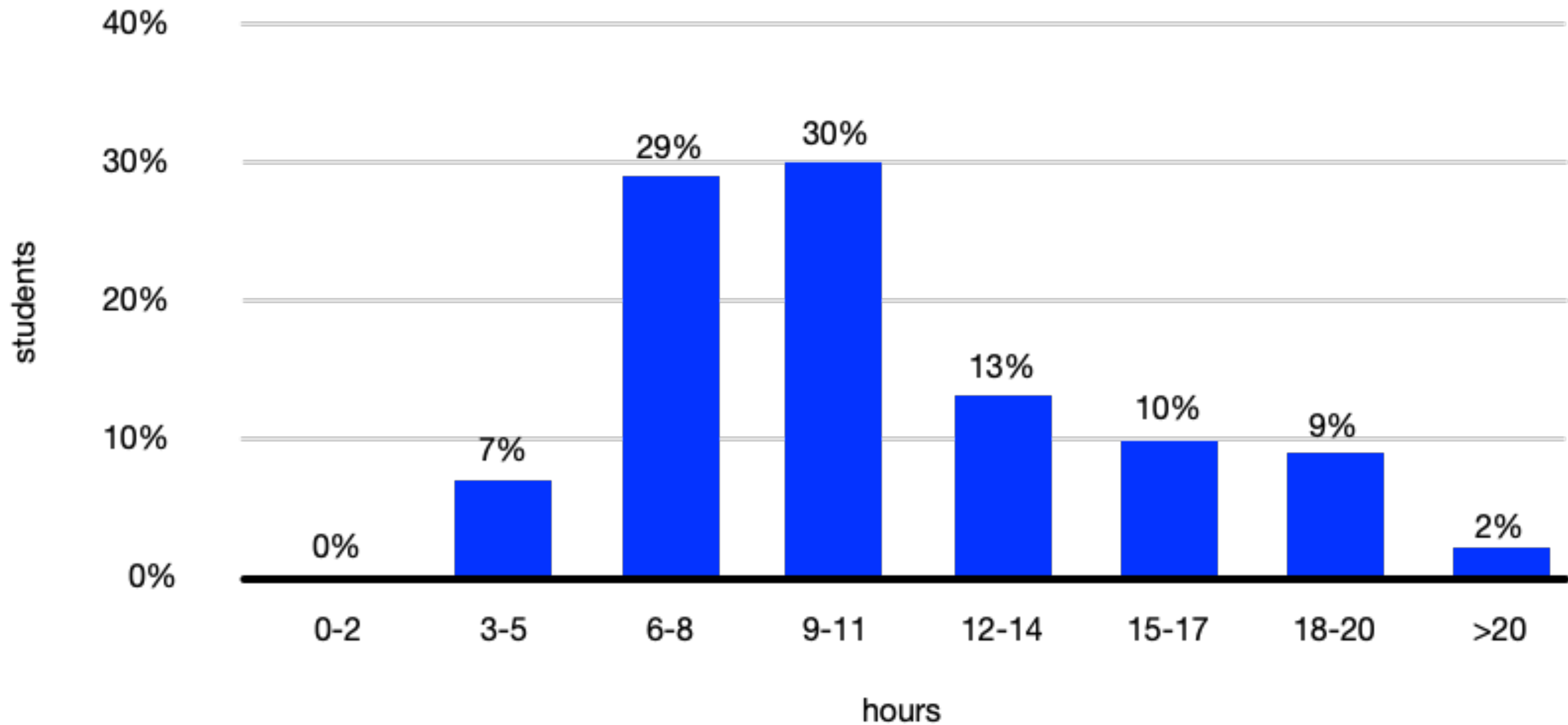
# Axes

- Correctness
- Design
- Style

# Difficulty



# Workload



# Academic Honesty

- <https://cs50.harvard.edu/college/2021/spring/syllabus/#academic-honesty>

# Academic Honesty

- "... be reasonable..."
- "... when asking for help, you may show your code to others, but you may not view theirs..."

# Academic Honesty

- **Regret clause.** If you commit some act that is not reasonable but bring it to the attention of the course's heads within 72 hours, the course may impose local sanctions that may include an unsatisfactory or failing grade for work submitted, but the course will not refer the matter for further disciplinary action except in cases of repeated acts.



PART TWO

# Course Structure

# Weekly Schedule

**Mon**

Lecture

**Tue**

Class

Quiz

**Wed**

Tutorials

**Thu**

Tutorials

Lab

**Fri**

Tutorials

**Sat**

Tutorials

**Sun**

Tutorials

Problem  
Set

# Lectures

- Pre-recorded, watch on Mondays
- Resources
  - Video
  - Notes
  - Shorts
  - Slides
  - Source Code

# Classes

- Tuesdays, 3pm-5pm ET
- Attendance expected
- Conceptual review, questions, practice problems, lab

# Tutorials

- Wednesdays-Sundays, 30-minute sessions via Zoom
- By-appointment opportunities for help
- 1:3 staff-to-student ratio
- [harvard.cs50.me](https://harvard.cs50.me)

# Quizzes

- Short, open-book, take-home quiz
- Due Tuesdays at 2:59pm ET

# Labs

- Short practice problems
- Due Thursdays at 11:59pm ET
- Time during class to work on labs
- Solutions posted on Wednesdays at 11:59pm ET
- Graded pass/fail

# Problem Sets

- Due Sundays at 11:59pm ET
- Graded on correctness, design, and style
- Submit form via Google Forms, submit work via Gradescope



# Final Project

- Opportunity to develop your own piece of software
- Groups of up to 3

# Late Policy

- Late submissions (of quizzes, problem sets, the test, and the final project's milestones) will be penalized at a rate of 0.1% per minute.
- However, you may grant yourself one 3-day (72-hour) extension during the term for any one problem set.
  - Form on course website, in syllabus.

# Support

- Tutorials
- Assigned teaching fellow
- Ed Q&A forum

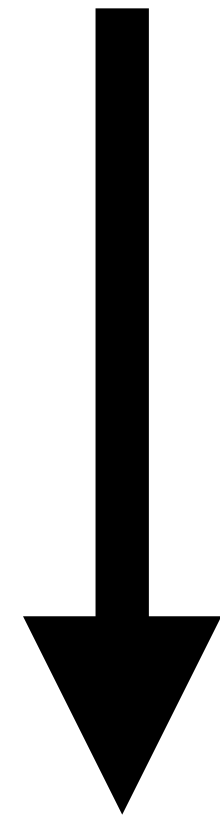
What questions do you have?

PART THREE

# Scratch

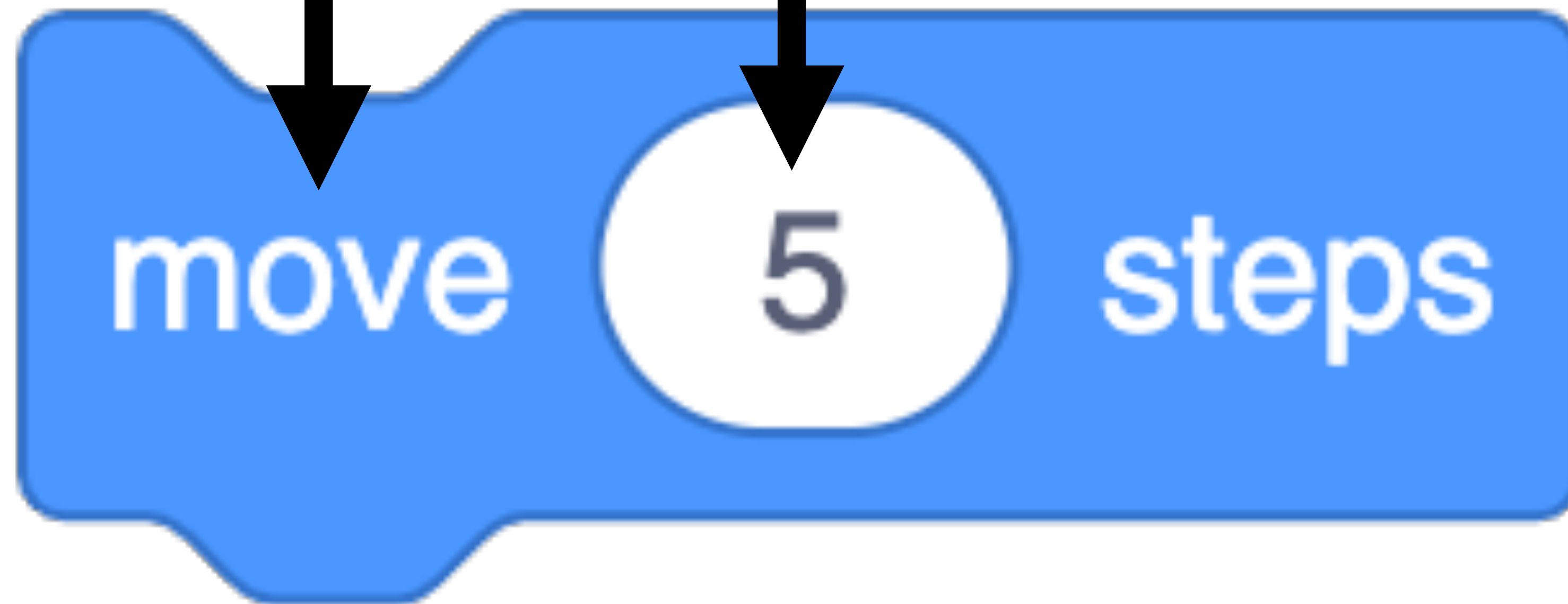
cs50.brianyu.me

event

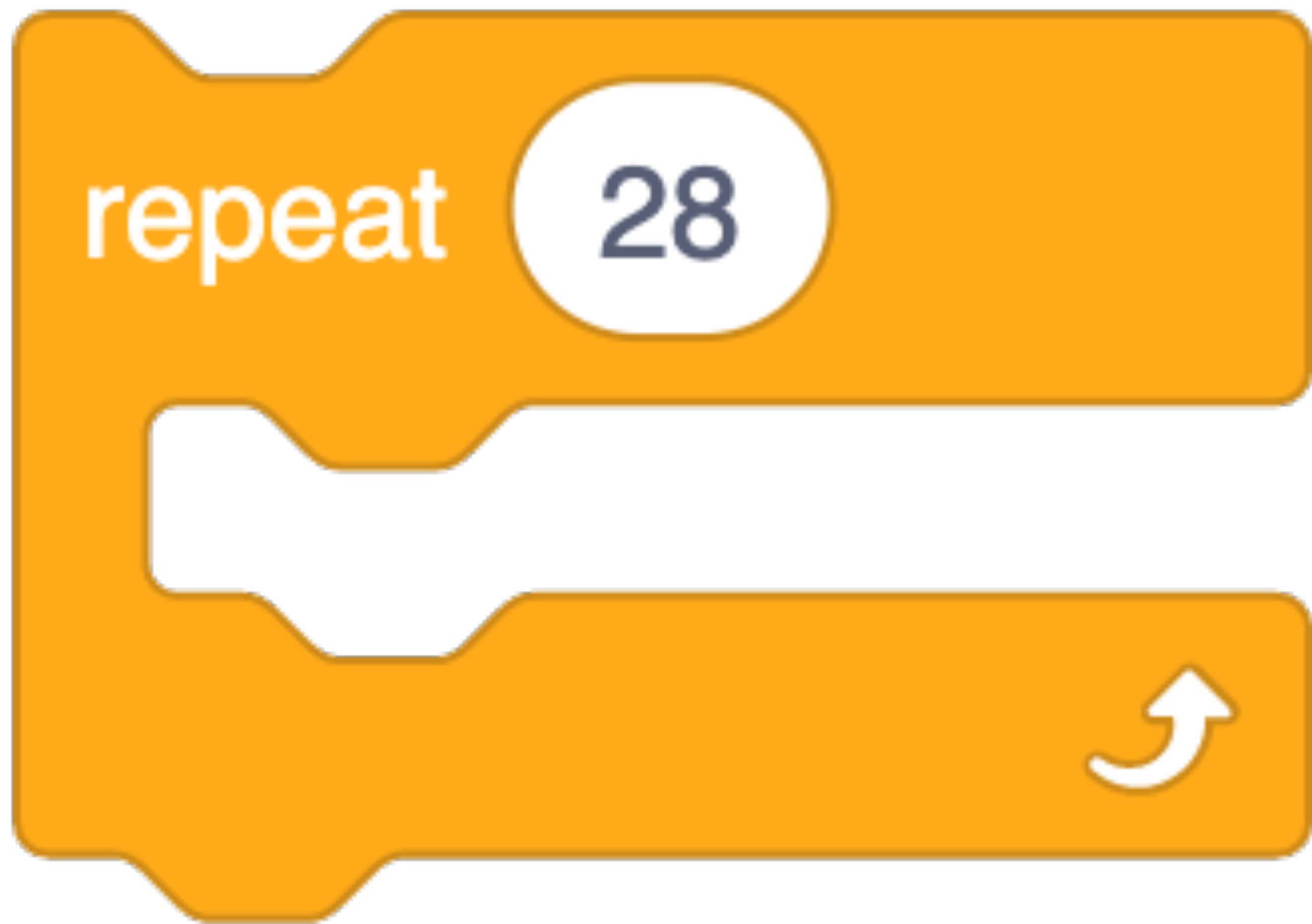


function

input





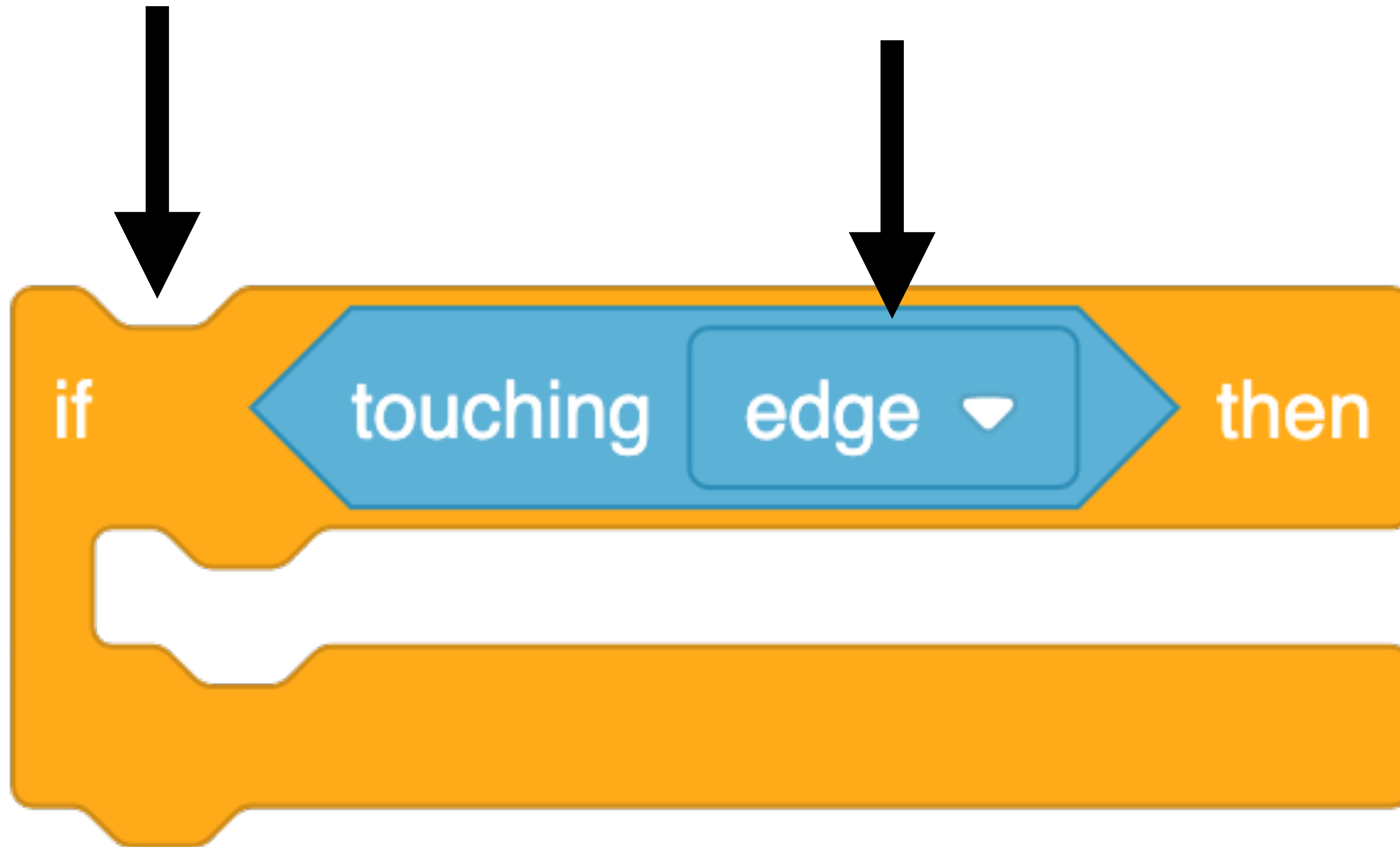


← loop

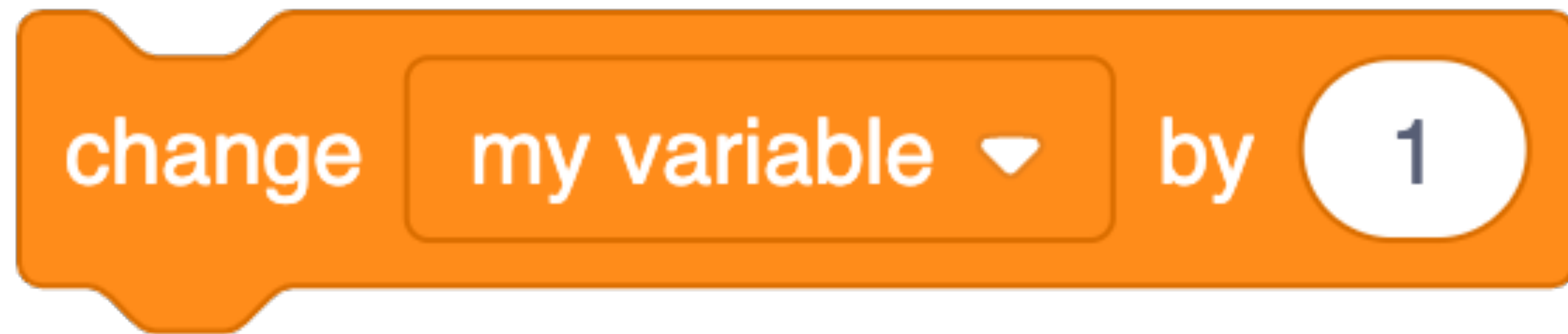
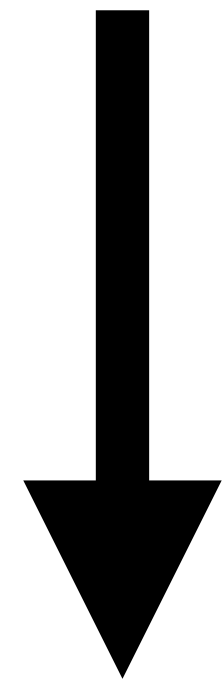
← loop body

condition

Boolean expression



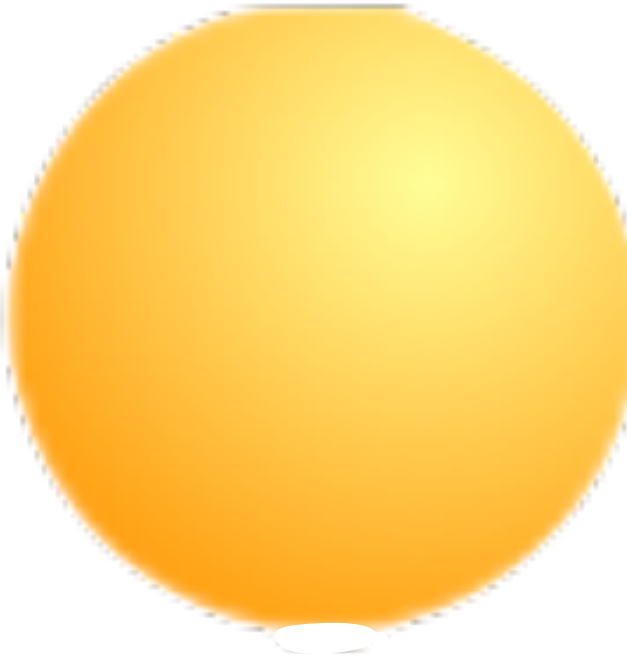
variable



Example



```
when green flag clicked
  forever loop
    point towards mouse-pointer
    move 5 steps
```



```
when green flag clicked
  set score to 0
  go to random position
  forever loop
    if touching sprite1 then
      change score by 1
      go to random position
```

# Problem Set 0

# Problem Set 0

- Scratch

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