

CS UNPLUGGED  at a distance

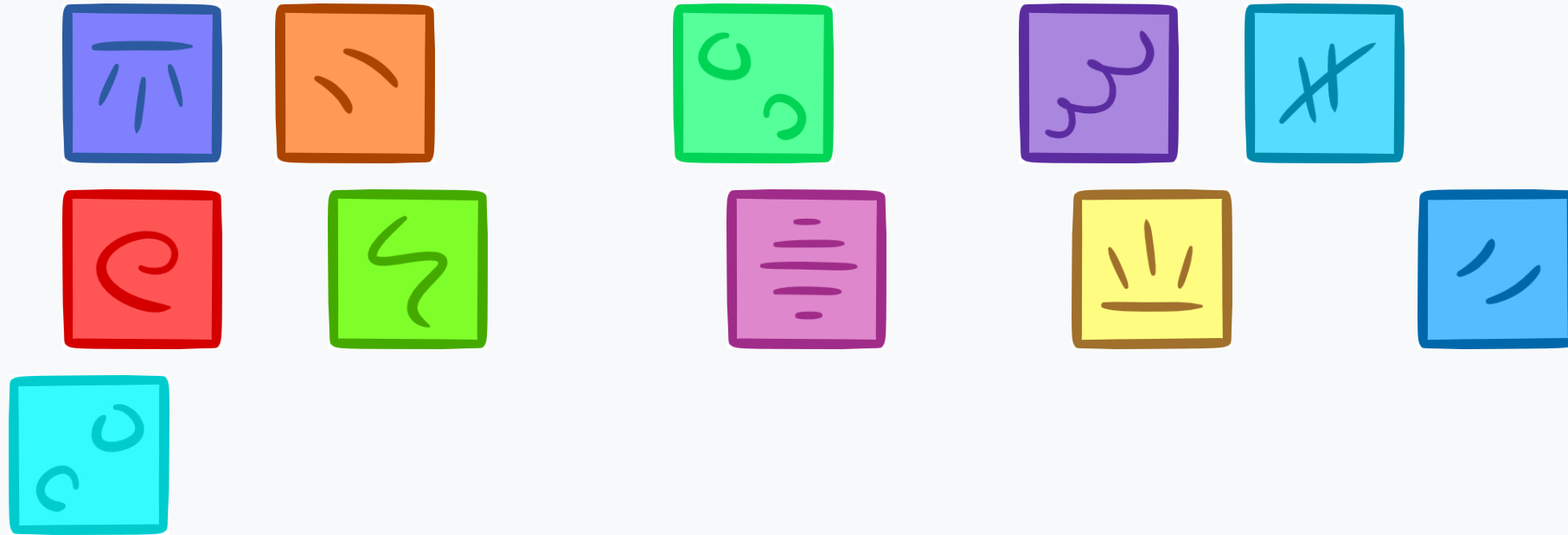
Algorithms

Key questions

- What is an algorithm?
- How is an algorithm different from a program?

High Score Boxes

Clicking a box will reveal its number; your task is to find the highest number and enter it below.



Highest number:

Submit

As an algorithm

```
set the maximum_so_far to the first number
```

```
for each other number:
```

```
    if the next number is larger than maximum_so_far:
```

```
        set maximum_so_far to the number
```

```
At the end, maximum_so_far contains the largest value
```

As an algorithm

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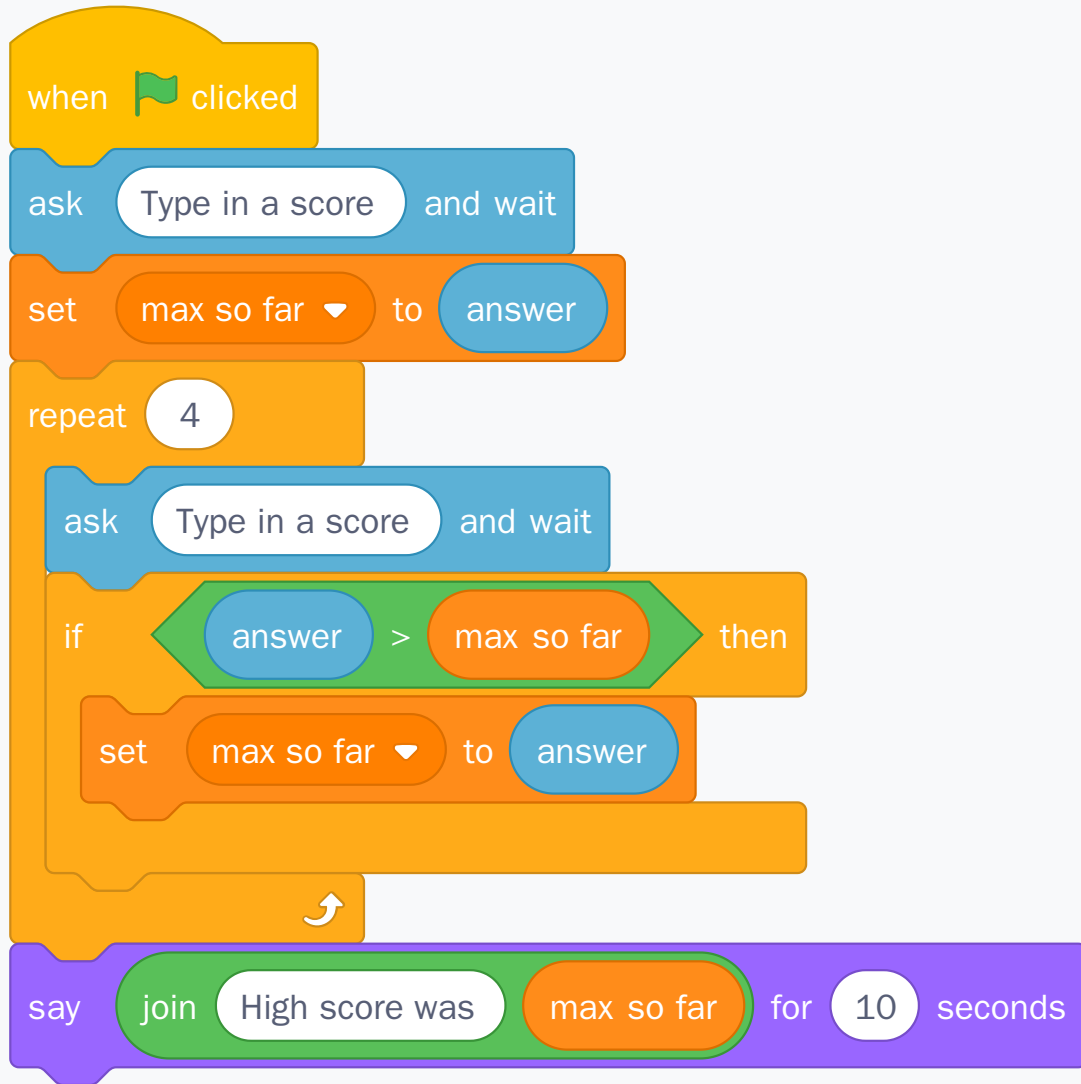
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for each other number:
```

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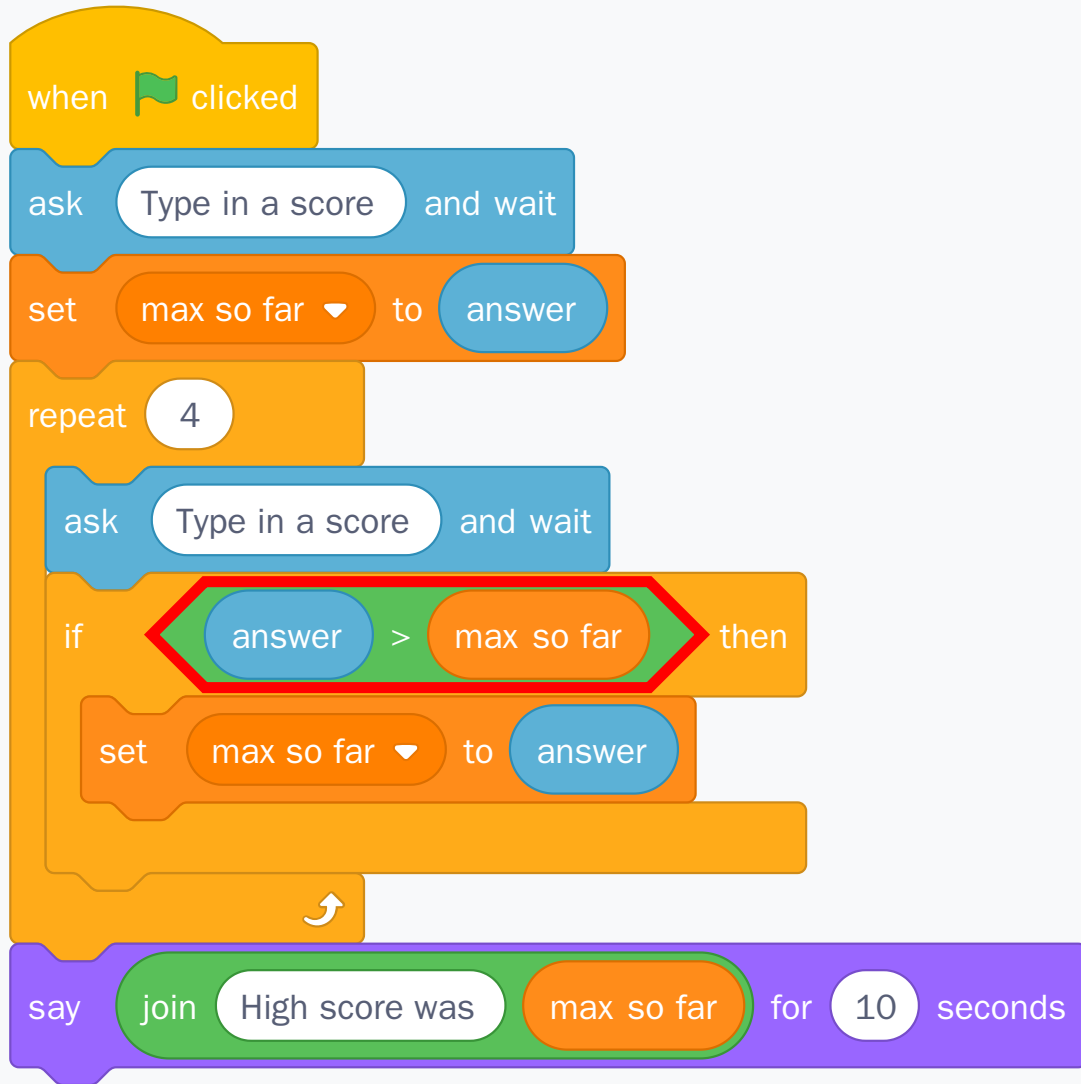
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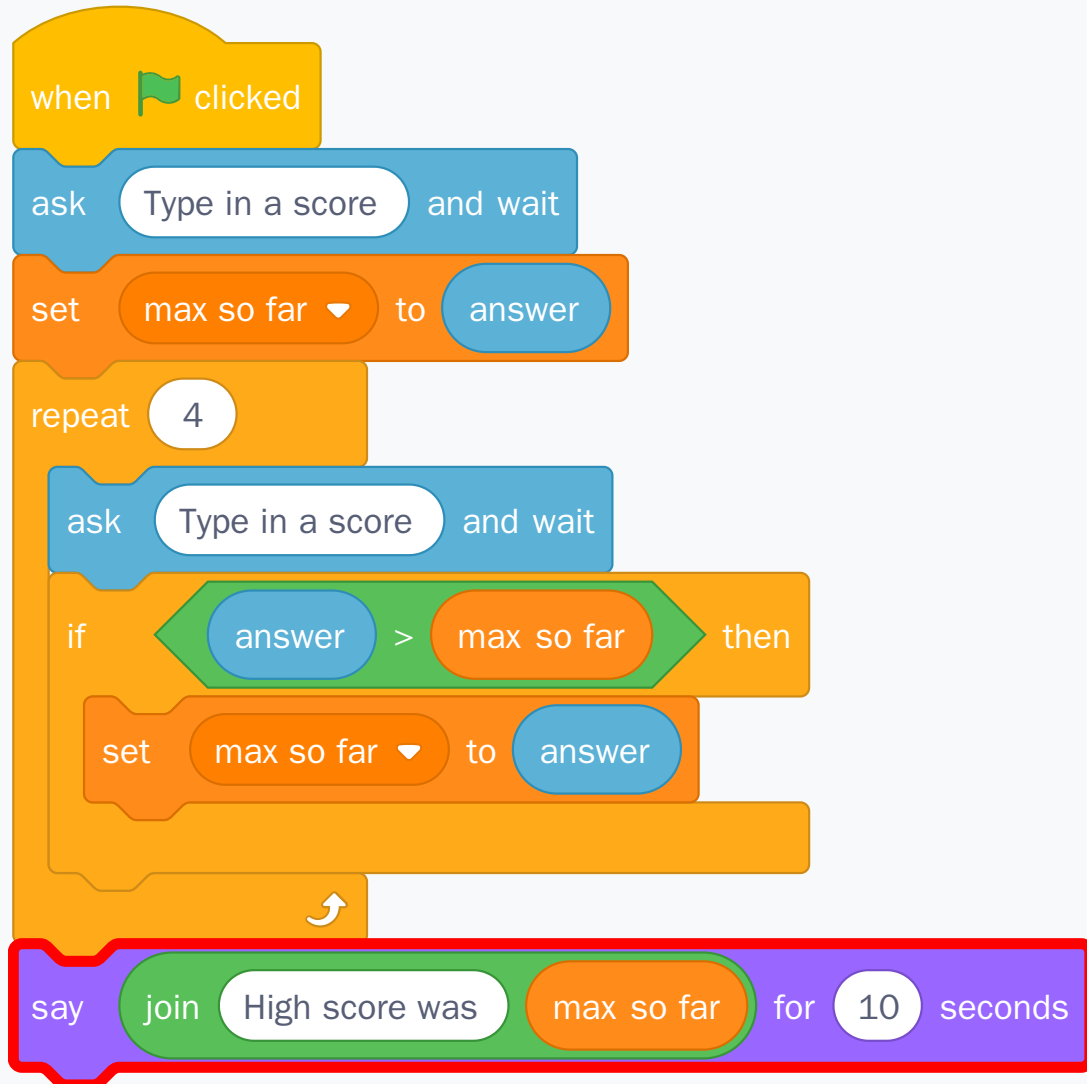

Scratch



Scratch

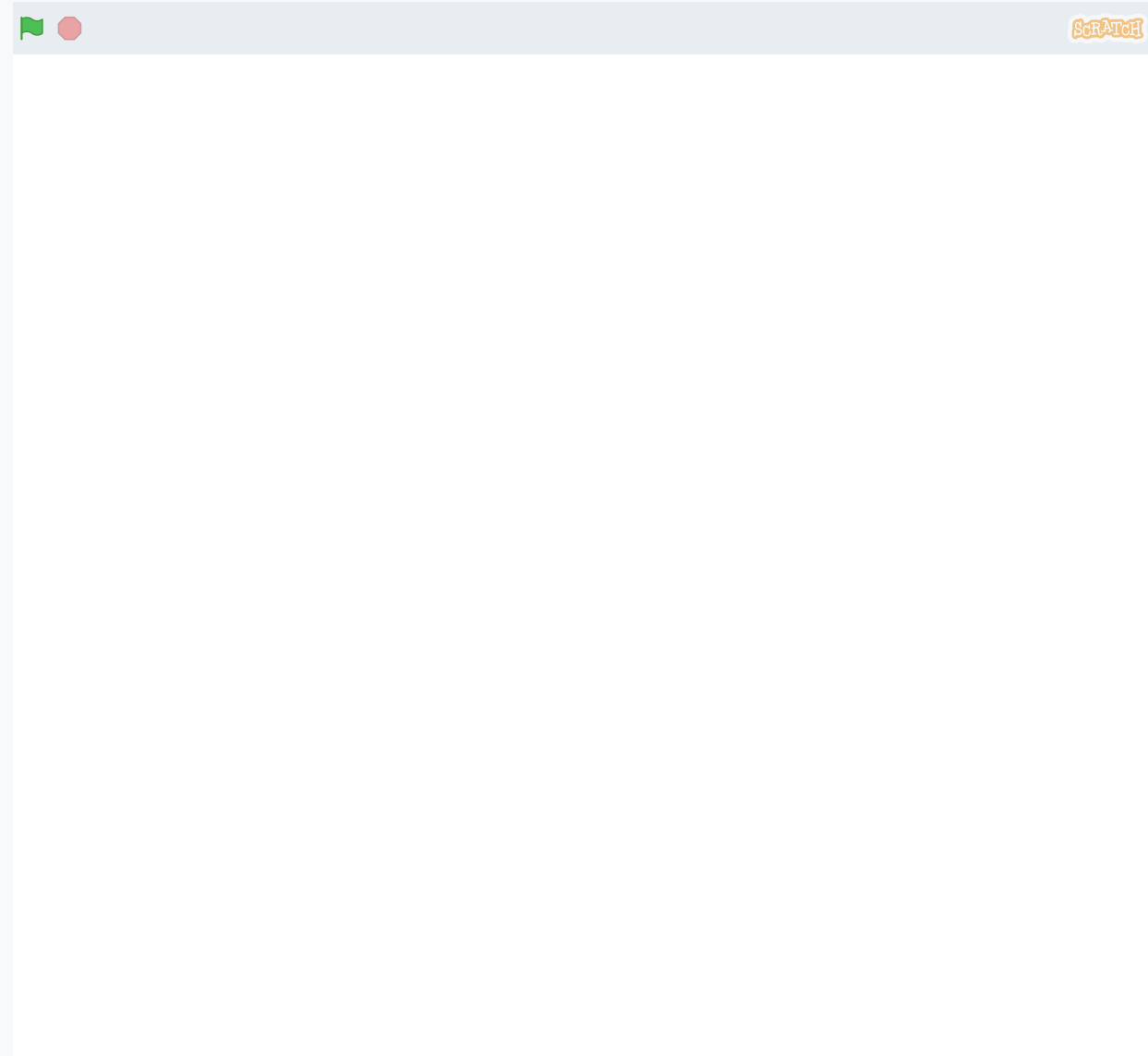


Scratch



Scratch

```
when green flag clicked
  ask "Type in a score" and wait
  set max so far to answer
  repeat 4
    ask "Type in a score" and wait
    if answer > max so far then
      set max so far to answer
  say join "High score was " max so far for 10 seconds
```



Python

```
max_so_far = int(input("Type in a score: "))

for i in range(4):
    score = int(input("Type in a score: "))
    if score > max_so_far:
        max_so_far = score

print("High score was", max_so_far)
```

Python

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Connecting to server /

Key questions

- What is an algorithm?
- How is an algorithm different from a program?

Supporting Resources

- [Computer Science Field Guide on Algorithms](https://www.csfieldguide.org.nz/en/chapters/algorithms/)

<https://www.csfieldguide.org.nz/en/chapters/algorithms/>

- [High score interactive](https://www.csfieldguide.org.nz/en/interactives/high-score-boxes/)

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