Coding Challenge

Instructions
For this question you will be required to write a small program to solve a challenge that will be presented to you once you begin.

Challenge Type
Programming

Python 3

(You can change your language later.)

Time limit
30 min

Practice Question

Start Challenge

Time Remaining: 29:31 Submit Final Answer

Challenge

Add Number Series II

Programming challenge description:

Write a program that, given an integer N, sums all the whole numbers from 1 through N (both inclusive). Do not include in your sum any of the intermediate values (1 and N inclusive) that are divisible by 5 or 7.

Input:
Your program should read lines from standard input. Each line contains a positive integer.

Output:
For each line of input, print to standard output the sum of the integers from 1 through n, disregarding those divisible by 5 and 7. Print out each result on a new line.

Test 1

Test Input

```
27
19
```

Expected Output

```
261
139
```

Test 2

Test Input

```
7
```

Expected Output

```
16
```

Test 3

Test Input

```
10
```

Expected Output

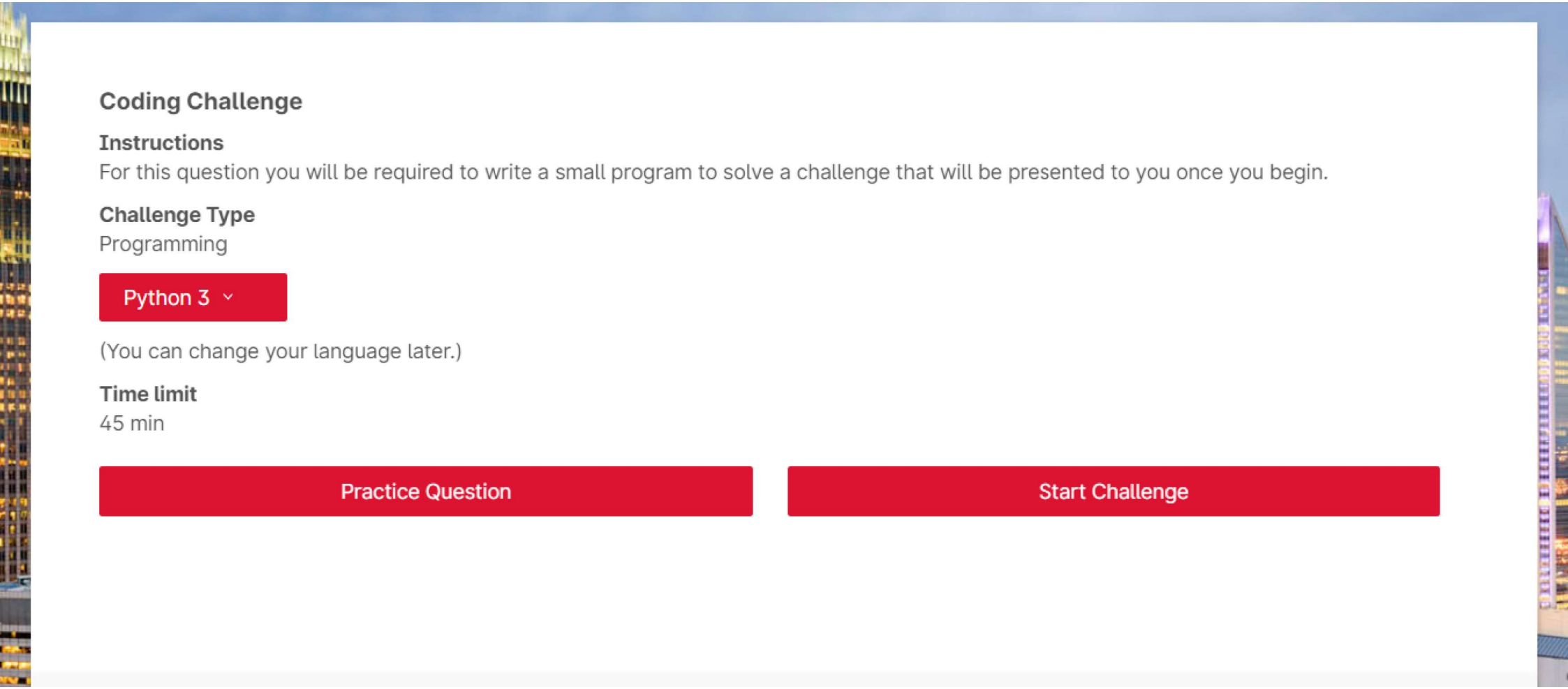
```
33
```

Editor Python 3 (v 3.10) Default Key Bindings Reset Code

```
1 import sys
2 # import numpy as np
3 # import pandas as pd
4 # from sklearn import ...
5
6 for line in sys.stdin:
7     print(line, end="")
8
```

Test Case Output Run Test Cases

No results to display. Click 'Run Test Cases' above to test your code.



Coding Challenge

Instructions
For this question you will be required to write a small program to solve a challenge that will be presented to you once you begin.

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Time limit
45 min

Practice Question

Start Challenge

Time Remaining: 44:55

Submit Final Answer

Challenge

Stack Implementation

Programming challenge description:

Write a program implementing a stack interface for integers. The interface should have 'push' and 'pop' functions. You will be asked to 'push' a series of integers and then 'pop' and print out every alternate integer.

Input:
Your program should read lines of text from standard input. Each line contains a sequence of space delimited integers.

Output:
For each line of input, user your stack interface to print to standard output a new sequence containing every alternate integer from the input in reverse order (space delimited), one sequence per line.

Test 1

Test Input

```
1 2 3 4
```

Expected Output

```
4 2
```

Test 2

Test Input

```
10 -2 3 4
```

Expected Output

```
4 -2
```

Editor

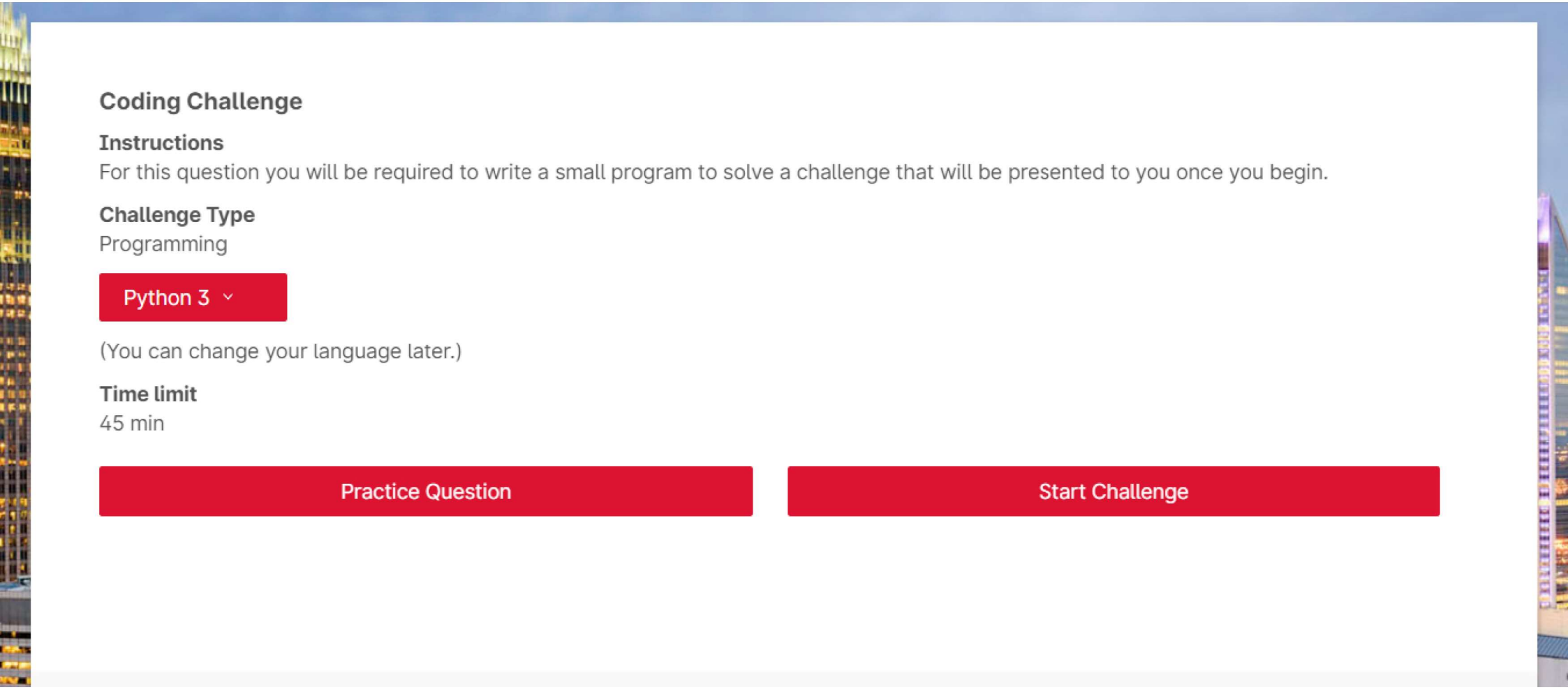
Python 3 (v 3.10) | Default Key Bindings | Reset Code

```
1 import sys
2 # import numpy as np
3 # import pandas as pd
4 # from sklearn import ...
5
6 for line in sys.stdin:
7     print(line, end="")
8
```

Test Case Output

Run Test Cases

```
No results to display. Click 'Run Test Cases' above to test your code.
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```



Coding Challenge

Instructions
For this question you will be required to write a small program to solve a challenge that will be presented to you once you begin.

Challenge Type
Programming

Python 3

(You can change your language later.)

Time limit
45 min

Practice Question

Start Challenge

Time Remaining: 44:46 Submit Final Answer

Challenge

Set Intersection

Programming challenge description:

Find the intersection of two sorted lists of integers.

Input:
Your program should read lines of text from standard input. Each line will contain two comma separated lists of integers in ascending order, one pair of lists per line. The lists are separated by a semicolon.

Output:
For each pair of input lists, print to standard output their sorted intersection in ascending order, comma separated, one intersection per line.

Test 1

Test Input

```
1,2,3,4;4,5,6
```

Expected Output

```
4
```

Test 2

Test Input

```
7,8,9;8,9,10,11,12
```

Expected Output

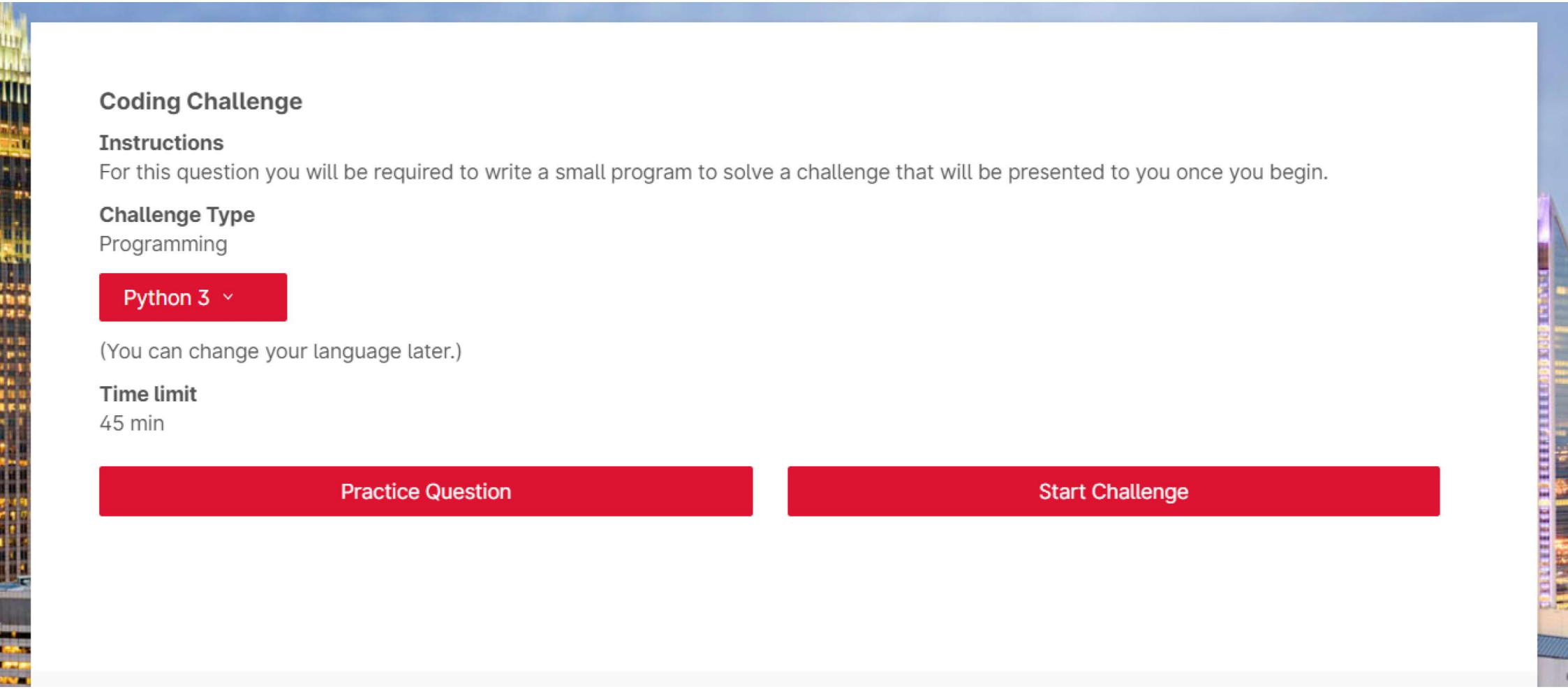
```
8,9
```

Editor | Python 3 (v 3.10) | Default Key Bindings | Reset Code

```
1 import sys
2 # import numpy as np
3 # import pandas as pd
4 # from sklearn import ...
5
6 for line in sys.stdin:
7     print(line, end="")
8
```

Test Case Output | Run Test Cases

```
No results to display. Click 'Run Test Cases' above to test your code.
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```



Coding Challenge

Instructions
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Challenge Type
Programming

Python 3

(You can change your language later.)

Time limit
45 min

Practice Question

Start Challenge

Time Remaining: 44:54 Submit Final Answer

Challenge

Number Pairs

Programming challenge description:
You are given a sorted array of positive integers and a number X. Print out all pairs of numbers whose sum is equal to X. Print out only unique pairs and the pairs should be in ascending order

Input:
Your program should read lines of text from standard input. Each line will contain a comma separated list of sorted numbers, followed by a semicolon, followed by the integer X.

Output:
For each line of input, print to standard output the pairs of numbers that sum to X. Print the pairs in ascending order (the first number of each pair should be less than or equal to the second number). If no pair exists that sums to X, print the string NULL.

Test 1

Test Input

```
1,2,3,4,6;5
```

Expected Output

```
1,4;2,3
```

Test 2

Test Input

```
2,4,5,6,9,11,15;20
```

Expected Output

```
5,15;9,11
```

Test 3

Test Input

```
1,2,3,4;50
```

Expected Output

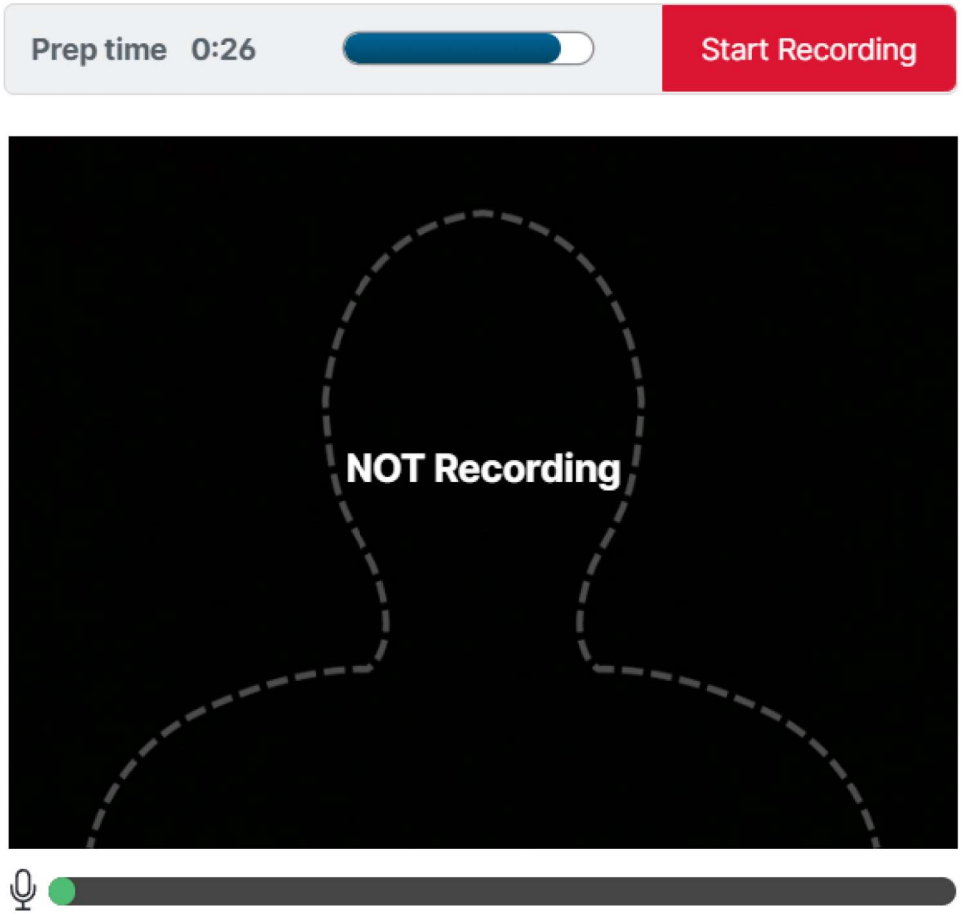
```
NULL
```

Editor | Python 3 (v 3.10) | Default Key Bindings | Reset Code

```
1 import sys
2 # import numpy as np
3 # import pandas as pd
4 # from sklearn import ...
5
6 for line in sys.stdin:
7     print(line, end="")
8
```

Test Case Output | Run Test Cases

```
No results to display. Click 'Run Test Cases' above to test your code.
```

Maximum response time: **3** minutes

Describe how you solved the second coding challenge. Walk us through your logic and describe alternatives that you considered but did not use.