



Level 0x0b

Code Quest Academy



Topics

- Events
- Hacker History
- Internetz

Cyber Quest and Code Quest

- Code Quest
 - Saturday, Feb 28th
 - Registration Nov 17th -
- Spring Break
 - March 23rd - 27th
- Cyber Quest
 - Saturday, March 28th
 - Registration Jan 5th -





Code Quest

<p>LLM Ninjas</p> <p>Parker W Zachary W Charles L</p>	<p>Team 2 Last Names</p> <p>Nathan d W Ian B P Zunaira T</p>
<p>Wildcat New Blood</p> <p>Jasper B Kirin R Hope R</p>	<p>Wildcat Interns</p> <p>Sam S Eshan V Jay J</p>

Code Quest

- Details
 - Saturday, February 28th, 9:00 - 1:30-ish
 - Teams are 2-3 students each, 4 teams max per school
 - 1 computer / laptop per team (one keyboard and one mouse too 😜)
 - No cell phones inside, no cameras (not even outside)
 - No buses, must provide your own transportation (they can't stay on site during the competition)
 - Breakfast and Lunch provided
- What you need to provide me
 - Team members and teams (team names)
 - Birthday (must be 11 yrs and older, middle-school officially allowed)
 - Citizenship (not related to ICE current politics, standard procedure for military contractors)
 - Return 2 Lockheed forms (Liability and Photo Release)
 - Return 1 school permission slip



Cyber Quest

- Details:
 - Saturday, March 28th, 9:00 - 1:30 ish
 - Teams are 3-5 students each, 4 teams max per school
 - Very large monitors discouraged
 - No cell phones inside, no cameras (not even outside)
 - No buses, must provide your own transportation (they can't stay on site during the competition)
 - Breakfast and Lunch provided
- What you need to provide me
 - Team members and teams (team names)
 - Birthday (must be 14 yrs and older)
 - Citizenship (not related to ICE current politics, standard procedure for military contractors)
 - Return 2 Lockheed forms (Liability and Photo Release)
 - Return 1 school permission slip



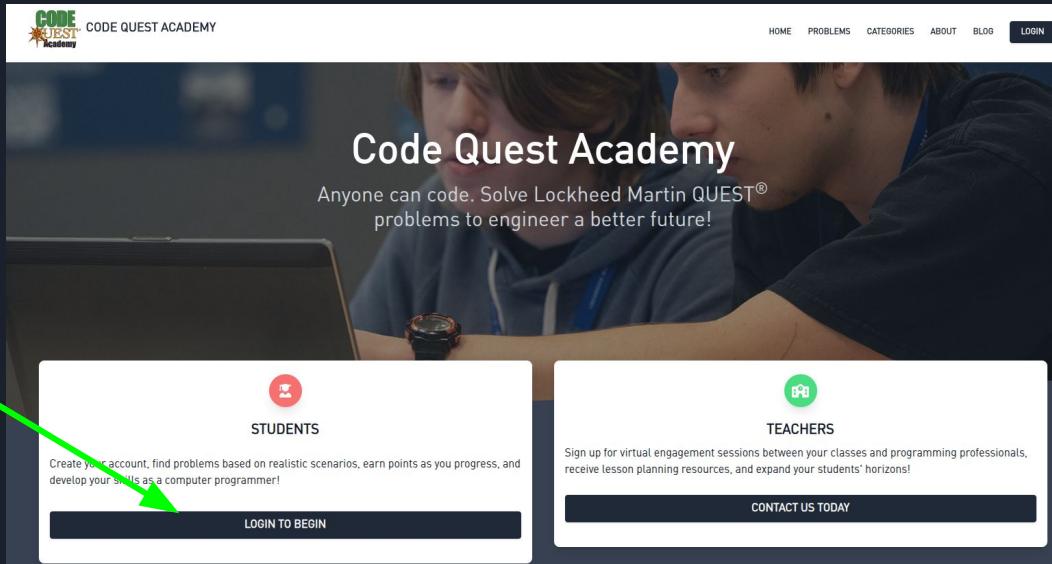
Code Red Worm(s)



- July 2001 - Code Red (named after the drink by researchers)
 - Exploited MS Windows IIS webservers for Windows NT and Windows 2000 Pro, and XP (beta)
 - Defaced servers ("HELLO! Hacked by Chinese!")
 - Randomly searched for other IIS servers on internet
 - DDoSes whitehouse.gov
 - Bug already had a patch from Microsoft, but nobody installed patch
 - v1 seed PRNG with a constant, attacked the same system over and over instead of properly spreading
 - Spread so fast that you couldn't patch before being attacked ([350.000 machines in 12 hours](#))
- August 2001 - Code Red II (named after string in binary)
 - Installed a trojan backdoor after infecting
 - Anytime explorer.exe was run...
 - Exposed C: and D: to the internet, allowed further writing to them
 - Even Microsoft themselves got infected by this
- Ended port 80 access for home users

Code Quest Academy

- <https://codequestacademy.com>
- Create a student account



Dashboard

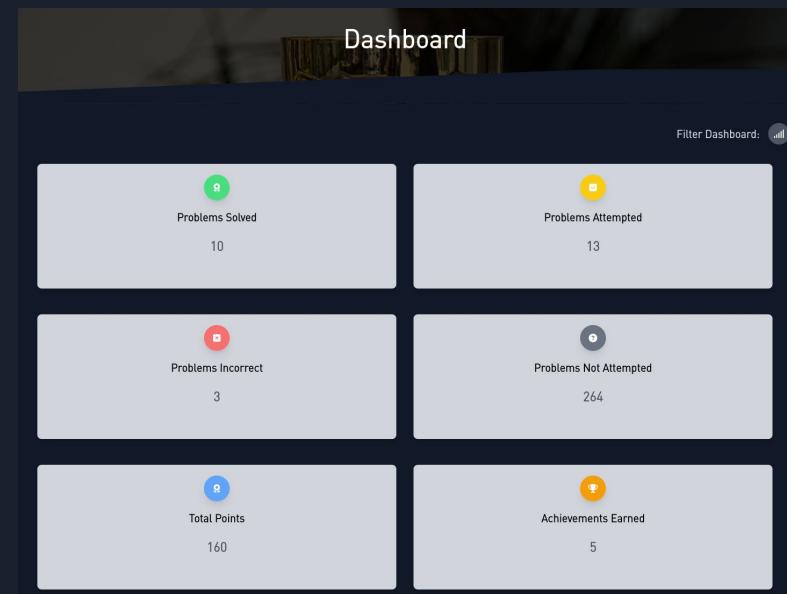
Continue Your Quest

Filter Problems: Difficulty Level Solution Status Search

Hello World Practice Not Started	Not So Self-Driving Practice Not Started	Addiply Easy Not Started	AEIOU Easy Not Started	AI Robot Easy Not Started
Anagram Checker Easy Solved	Animal Farm Easy Not Started	Anti-Asteroid Weapon Easy Not Started	Are You A Spy Easy Not Started	Around and Around Easy Not Started
Autocorrect Easy Solved	Batter Up Easy Not Started	Bigger is Better Easy Not Started	Brick House Easy Not Started	By the Book Easy Not Started
Caught Speeding Easy Not Started	Change for the World Easy Not Started	Charlie Quebec Easy Not Started	Chinese Zodiac Easy Not Started	Collatz Conjecture Easy Not Started

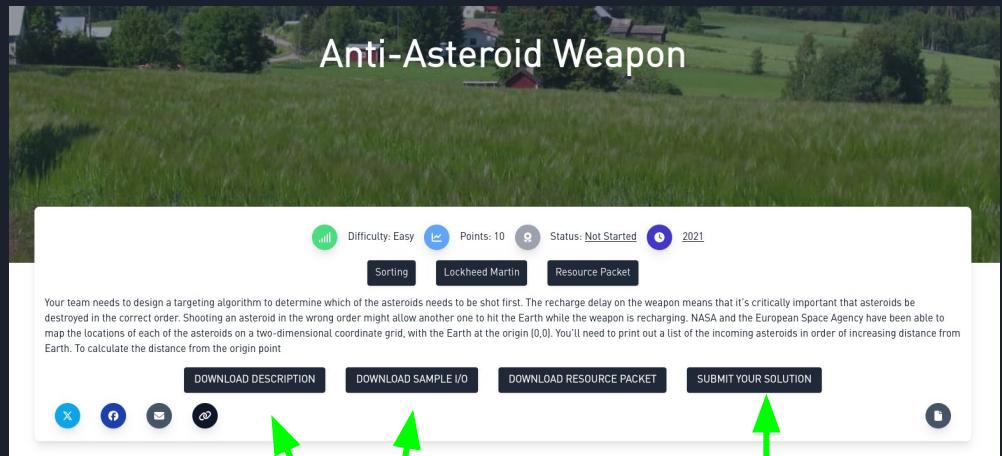
Problem Count: 277

1 2 3 ... 13 14



Problem Page

- Download problem description (PDF)
- Download sample input and output (.zip)



Extracting Sample Input and Output

```
mwales@Metroid:~/checkouts/security-private/code_quest/21/anti-asteroid-weapon$ mv ~/Downloads/anti-asteroid-weapon-samples.zip ./
mwales@Metroid:~/checkouts/security-private/code_quest/21/anti-asteroid-weapon$ ls
anti-asteroid-weapon-samples.zip
mwales@Metroid:~/checkouts/security-private/code_quest/21/anti-asteroid-weapon$ unzip anti-asteroid-weapon-samples.zip
Archive: anti-asteroid-weapon-samples.zip
  inflating: 1.in
  inflating: 1.ans
mwales@Metroid:~/checkouts/security-private/code_quest/21/anti-asteroid-weapon$ cat 1.in
2
3
2 1
1 1
5 5
4
2 2
1 7
-1 0
1 1
mwales@Metroid:~/checkouts/security-private/code_quest/21/anti-asteroid-weapon$ cat 1.ans
1 1
2 1
5 5
-1 0
1 1
2 2
1 7
```

Code your solution

- Choose one of the following weapons
 - Python (3.9.16)
 - Java (OpenJDK 17)
 - C++ (g++)
 - C# (mono 6.8)
- Pick an IDE (make sure this works offline / with poor internet connection)
 - Visual Studio Code
 - Eclipse 😱
 - Vim / Emacs / nano
- Read input on stdin
- Write output on stdout

```
#!/usr/bin/env python3

num_tc = int(input())

for tc_i in range(num_tc):
    num_asteroids = int(input())
    dist_list = []
    for ast_i in range(num_asteroids):
        ast_data = input()
        ast_parts = ast_data.split(" ")
        x = int(ast_parts[0])
        y = int(ast_parts[1])

        dist_val = x * x + y * y

        dist_list.append( (dist_val, ast_data) )

    dist_list.sort()

    for dist, ast in dist_list:
        print(ast)
```

Upload your solution

Upload Solution

Select the file containing the source code of your solution. Only one file may be uploaded. The website will compile your program and run it twice; once using the sample input you have been provided, and once with a larger, secret input file. If your program produces the correct output for both inputs, you've solved this problem! Solutions may take up to five minutes to run.

SELECT FILE solve.py

Python ▾

UPLOAD SOLUTION **CANCEL**

Did it work?

- Wait a little bit, then refresh your problem page
 - Solved
 - Wrong Answer
 - Judging in Progress
- What you don't get:
 - Feedback / errors

A screenshot of a challenge interface titled "Anti-Asteroid Weapon". The title is overlaid on a photograph of a green field and a small red building. Below the title, there is a white card with challenge details:

- Difficulty: Easy
- Points: 10
- Status: Solved
- 2021

The card also includes buttons for "Sorting", "Lockheed Martin", and "Resource Packet". Below the card, there is a descriptive text block and four download buttons: "DOWNLOAD DESCRIPTION", "DOWNLOAD SAMPLE I/O", "DOWNLOAD RESOURCE PACKET", and "SUBMIT YOUR SOLUTION". A green arrow points from the top right towards the "Status: Solved" button.



Your quest

- Register at Code Quest Academy
- Pick a super easy problem
- Pick a language and toolset you (and your team) can be comfortable with
 - Is it easy to use on the platform you will have for Code Quest
 - Can you easily give it standard input from another file
 - Required by Code Quest judging framework
 - Makes it fast for you to test if it is working
 - Can you debug your code easily in this tool
 - Interactive debugger / step through code
 - Add more print statements to the code



Links

- <https://www.caida.org/archive/code-red/>
- <https://lmcdequestacademy.com/>
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