

# Crypto Cracking Questionnaire

## Background Questions

Have you ever worked on a CTF previously?

- a) No
- b) Yes

For the purposes of this questionnaire, use the following definition of *hands-on activity*:

Any assignment where you work with a given model or simulation of something, and where you must apply your theoretical knowledge and understanding on a practical level, in order to solve a specific set of problems or challenges.

Do you personally find hands-on activities generally helpful in improving your knowledge or understanding of a topic?

- a) No
- b) Yes

Have you ever used hands-on activities to learn *Computer Science* topics, either personally or in a class?

- a) No
- b) Yes

Have you ever used hands-on activities to learn *cybersecurity* topics, either personally or in a class?

- a) No
- b) Yes

If you answered yes to the last question, briefly describe your experience using hands-on activities. For each case, please also answer the following questions:

- How familiar were you already with the material being taught?
- How much guidance were you given on how to complete the activity?
- Was the activity completed during class, in a lab, as an assignment, or on your own time?
- Do you believe the activity was an effective way to utilize that time?
- Did it help improve your understanding of the topic?

### CTF Questions

Which set of instructions did you use?

- a) Instruction Set 0
- b) Instruction Set 1
- c) Instruction Set 2

How much of the activity were you able to complete?

- a) I did not solve any
- b) I was able to reveal the password for user 1
- c) I was able to reveal the password for user 2
- d) I was able to reveal the final flag

Approximately how many hours did you spend actively working on this challenge?

Do you think you would have a better understanding of RSA, if you had spent the same time learning it on your own with a different approach?

- a) No
- b) Yes

On a scale of 1 to 5, how would you rate this activity's difficulty?

*1 means you thought it was trivial to solve*  
*5 means you thought it was impossible to solve*

In a sentence or two, please explain how familiar you were with RSA and public key cryptography before working on this activity?

After working on this activity, my understanding of the theory behind RSA has \_\_\_\_\_

- a) Not changed
- b) Slightly improved
- c) Greatly improved

After working on this activity, my understanding of how RSA is used and implemented has \_\_\_\_\_

- a) Not changed
- b) Slightly improved
- c) Greatly improved

### Design Questions

If you were given more guidance on how to complete this activity, how do you feel that would have impacted your learning?

If you were given less guidance on how to complete this activity, how do you feel that would have impacted your learning?

Are there any changes you would make to this challenge that would have improved your learning?

What did you like and dislike about this activity?