

CS 104  
Fall 2011  
October 5, 2011

Name: \_\_\_\_\_

Quiz #4

1. (1 point) What is the name of the technology that hides information within an image?

Steganography

2. (1 point) Public key cryptography is often based on some fundamental concept in mathematics, and the inability for computers to perform this function well. What is this concept from mathematics?

Factoring prime numbers

3. (1 point) What was the specific name given for a substitution cipher where each plaintext letter is replaced by some letter a fixed number spaces down in the alphabet?

Caesar Cipher

4. (2 points) What is the ROT13 representation of the ciphertext for "UA"?

HN

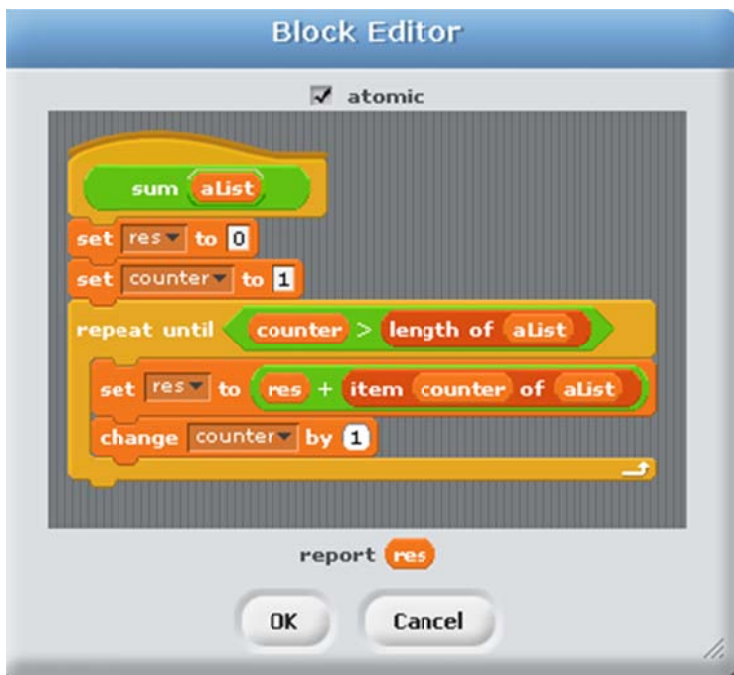
5. (2 points) Even with public key cryptography, there is a need for digital certificates. Explain a scenario involving Alice and Bob where a digital certificate is needed.

If Alice sends Bob a message, Bob may want to verify that it was actually sent from Alice and that the email is not spam or a virus.

6. (1 point) What is the name of the data structure in BYOB that can be used to store multiple values?

list

7. (2 points) What does the following operation do (describe in English its purpose)?



The operation sums all of the numbers in "aList" and returns (or reports) the sum.