Name: _____

Date: _____

Homework 1

Answer the questions in the spaces provided. If you run out of room for an answer, continue on the back of the page

Question:	1	2	3	4	5	6	7	8	9	10	Total
Points:	12	10	10	3	3	10	5	5	17	25	100
Score:											

1. (12 points) What is the purpose of Diffie-Hellman?

2. (10 points) What is the difference between symmetric and asymmetric cryptography?

3. (10 points) What is a trapdoor function?

4. (3 points) What is a synonym for asymmetric encryption?
   - A. Advanced Encryption System (AES)
   - B. Public-key Cryptography
   - C. Caesar Cipher
   - D. Secret-key Cryptography

5. (3 points) What is a synonym for symmetric encryption?
   - A. Advanced Encryption System (AES)
   - B. Public-key Cryptography
   - C. Secret-key Cryptography
   - D. Cyber Security

6. (10 points) What is the definition of Perfect Forward Secrecy?

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7. (5 points) The _____ is the set of possible messages.

8. (5 points) If you want to make information secret, hide its existence or make it _____.

9. (17 points) What are the two properties of Digital Signatures and why are they important?

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10. (25 points) I am performing a Diffie Hellman Key Exchange with you. Given prime numbers 3 and 5, and secret numbers 18 and 23, what is our shared key?