

**CSE 484 In-class Worksheet – Lecture 11 – Fall 2017**

Name: \_\_\_\_\_ UW Student # : \_\_\_\_\_ Date: \_\_\_\_\_

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Partner names for this activity: \_\_\_\_\_

**Q1 (Diffie-Hellman):** Let  $p = 11$ . Let  $g = 7$ . Alice's private key is  $x=4$ . Bob's private key is  $y=8$ . What is their shared key?

**Q2 (RSA):** Given these RSA parameters:  $p=5$ ,  $q=7$ ,  $e=5$

What is  $N$ ?

What is  $\phi(N)$ ?

What is  $d$ ?

Given these parameters, encrypt 16.

Given the parameters, decrypt 12.