

## Lab Assignment 9

Submit it to iCollege dropbox by **11/11 11:00PM**. Late assignment submissions will receive 50% of the original score.

**For both questions, you need to show work.**

**Question 1.** How to arrange four books on OS, seven on programming, and three on data structures on a shelf such that books on the same subject must be together?

4 OS books, 7 Programming books, 3 data structure books | 3 different subjects.

$$(4! \cdot 7! \cdot 3!) \cdot 3! = 4,354,560$$

**Question 2.** How many ways can a committee of two women and three men be selected from a group of five different women and six different men?

$$(C(5,2)) * (C(6,3))$$

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$$\frac{5!}{2! * (5 - 2)!} * \frac{6!}{3! * (6 - 3)!}$$

$$10 * 20 = 200$$