CSE 312 **(DO NOT INCLUDE YOUR NAME)**

HW #\_\_

**Problem 1 (example)**

**Answer:**

|  |
| --- |
| **.** |

(In general, we want to see **both** a formula like and its explicit numerical value of .)

**Explanation:**

We need to get exactly DABC, and there are ways to arrange those letters, so we have a probability of getting a random permutation in that order.

(**Remember to start each new problem on its own page.** Do **not** include the problem statement in your solution as it takes up too much space and we already know the problem statement.)

**Problem 2 (multi-part example, and large numbers)**

**Part (a)**

**Answer:**

|  |
| --- |
|  |

(Please give the raw formula you used, **and** its value, possibly in scientific notation if it is too large).

**Explanation:**

Explain here.

**Part (b)**

**Answer:**

|  |
| --- |
|  |

**Explanation:**

Explain here.

**Problem 3 (proof problem example)**

**Proof:**

**(Short way)**

**(Long way)**

First, by the chain rule, we have

Switching the roles of and gives

Since , we can set them equal to get

But dividing by gives Bayes Theorem