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1. (6 pts) Last week we worked on design documents that were modeled on three steps from Polya's problem-solving process. What were these three steps used in our design process? Explain the importance of each.

Understand problem

- understanding the problem is critical to successful completion of the problem. It makes sure everything you need will be included

Design/Devise Plan

and makes designing, testing the plan easy

list out all the steps and parameters that will be used. This is important as it helps you know where you are

Test Plan

going when coding,

making sure the plan works is crucial. This makes debugging easier, too.

2. (3 pts) Assume that you are given a problem where you must prompt the user to enter a number between (and including) 0-10 and print how many numbers are between the number entered up to 10. [0..10]

Example operation:

Enter a number between and including 0-10: 4

There are 6 numbers greater than 4 up to 10.

Provide an example of a good, bad, and edge case with the expected results for each.

Good case

Input: 7

Output: 2 (7, 8, 9, 10)

Bad case

Input: 17

Output: wrong answer

[0, 10]

Input range

$[-\infty, -1] \cup [11, \infty)$

3. (1 pts) Based on the following code, give the final value of ans.

```
int j = 2;  )++
```

```
int k = 6;
```

```
int ans = j++ - ++k;
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2 7 = -5