The rules:
This is a multiple choice quiz. You must circle exactly one answer with an ink pen.
If two or more answers are circled, the answer is not accepted.
You are allowed to use only this paper and pen/pencil. No calculators.
No books, no notebooks, no web access. You MUST write your name and UCLA id in ink.

Points: (10 per correct answer)
Let $U = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$, $A = \{1, 2, 3, 4\}$, $B = \{3, 4, 5, 6\}$, $C = \{1, 3, 5, 7, 9\}$.

**Question 1.** The size $|B|$ is equal to:

3 4 5 6 7

**Question 2.** The size $|A \cap C|$ is equal to:

1 2 3 4 5

**Question 3.** The size $|B \cup C|$ is equal to:

5 7 8 9 10

**Question 4.** In modular arithmetic, $18 - 2 \mod 3$ is equal to

1 2 3 18 600

**Question 5.** We proved in class that regions in the plane separated by lines can be properly colored with how many colors:

1 2 3 4 5