Note on HW1

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For problem 1 – 4, you are able to earn 10 points per each problem. Problem 5 deserves 5 extra points. The extra points you get from the problem 5 may compensate your missing points in problem 1 – 4. You can earn up to 40 points from this homework.

Problem 2

Many students chained the premises and their contrapositives and showed that $C \rightarrow D$ is valid. Then, they concluded that $C \rightarrow \neg D$ is not valid.

This argument, however, is not sound in general. Therefore, you cannot rely on this argument. As a counter-example, consider the case where we have $\neg C$ as a premise. We can show that both of $C \rightarrow D$ and $C \rightarrow \neg D$ are valid at the same time.