Problem set 1,2 

Graded

Student

**Total Points** 

90 / 100 pts

## Question 1

Exercise 1.2.9d (enter yes or no)

10 / 10 pts

- ✓ 0 pts Correct
  - 10 pts no answer / wrong problem / illegal template
  - 10 pts illegible
  - 10 pts incorrect

## Question 2

Exercise 1.2.9h (enter yes or no)

10 / 10 pts

- ✓ 0 pts Correct
  - 10 pts no answer / wrong problem / illegal template
  - 10 pts illegible
  - 10 pts incorrect

#### **Question 3**

Exercise 1.2.10b (enter yes or no)

**10** / 10 pts

- ✓ 0 pts Correct
  - 10 pts no answer / wrong problem
  - 10 pts illegible
  - 10 pts incorrect

**Exercise 1.2.12b 10** / 10 pts

- ✓ 0 pts Correct
  - 10 pts no answer / wrong problem
  - 10 pts illegible
  - 10 pts incorrect notation
  - **10 pts** Gave the set S imes T instead of the intended answer T imes S
  - 5 pts This question has 2 parts. Missing/wrong set cardinality(number of elements) in the answer
  - 4 pts Minor notation errors(e.g omitted a bracket or a comma)
  - 3 pts Definition understanding error
  - 5 pts Did not write out the Cartesian product set in the answer

#### **Question 5**

- 0 pts Correct
- 10 pts no answer / wrong problem
- 1 pt illegible
- ✓ 5 pts incorrect co-domain
  - **10 pts** Wrong / missing delimiters
  - 5 pts Incorrect capitalization of variables
- ✓ 5 pts incorrect domain
  - **5 pts** delimiters must be matching pairs
- You must write out the domain and co-domain using set notation (i.e. listing out the elements of C and D instead of just saying C and D).

#### Question 6

Exercise 1.3.15.e (enter yes or no)

10 / 10 pts

- ✓ 0 pts Correct
  - 10 pts illegible
  - 10 pts incorrect
  - 10 pts typed

**Exercise 2.1.7 10** / 10 pts

- ✓ 0 pts Correct
  - 10 pts no answer / wrong problem
  - 10 pts illegible
  - **10 pts** incorrect notation / this is a conjunction with one negation
  - **10 pts** typed
  - 5 pts extraneous symbol

#### **Question 8**

**Exercise 2.1.22** 10 / 10 pts

- ✓ 0 pts Correct
  - 10 pts no answer / wrong problem
  - **10 pts** illegible / follow directions
  - **5 pts** 1 or 2 incorrect entries
  - **7.5 pts** 3 or 4 incorrect entries
  - **10 pts** 5 or more incorrect entries
  - 10 pts truth table is incomplete / used incorrectly
  - **5 pts** no sentence included
  - 2 pts sentence is vague

#### Question 9

**Exercise 2.1.42 10** / 10 pts

- ✓ 0 pts Correct
  - 10 pts Incorrect
  - 10 pts no answer / wrong problem
  - 10 pts illegible
  - **5 pts** 1 or 2 incorrect entries
  - **7.5 pts** 3 or 4 incorrect entries
  - **10 pts** 5 or more incorrect entries
  - 10 pts Missing Necessary Work
  - 5 pts answer the question/ typed



- 10 pts no answer / wrong problem
- 10 pts illegible / unintelligible / does not use formal logic
- 5 pts 1 or 2 incorrect entries
- 7.5 pts 3 or 4 incorrect entries
- 10 pts 5 or more incorrect entries
- 5 pts poor choice of variables led to errors
- 3 pts answer the question

C Regrade Request

I submitted the first 10 questions from the problem set that originally posted by Professor Epstein on blackboard. I was close to finishing the longer version but since Professor Epstein announced that we would be going with the shorter version, I decided to just submit the first 10 questions that I had done on the longer version. It turns out that the questions don't match as the question 10 on the longer version was different than the one on the shorter version (i.e. question 10 on my version was 2.1.42 and question 10 on the shorter version was 2.1.45). Could you please look into this issue?

Submitted on: Sep 12

credit given.

Reviewed on: Sep 18

# I also worked with the following students (provide EMLPIDs only)

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# My answers came in part or in full from the following sources

Lecture Z slides

(Introduction to logic)

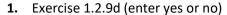
Lecture Z slides

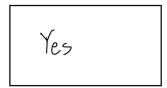
(Laws and logical equivalence)

Put your answer in each indicated box. Answers must be handwritten, legible and use correct notation.

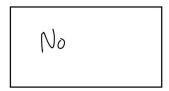
Study the answers in Appendix A to similar problems so you know what your approach should be.

Larger boxes indicate that you are expected to provide substantial detail.





2. Exercise 1.2.9h (enter yes or no)



**3.** Exercise 1.2.10b (enter yes or no)

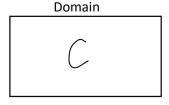


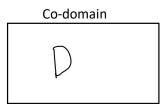
**4.** Exercise 1.2.12b

$$S = \{2,4,6\} \quad T = \{1,3,5\} \quad |T_{X}S| = |T| \times |S| = 3 \cdot 3 = 9$$

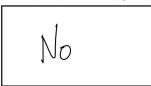
$$T \times S = \{(1,2),(1,4),(1,6),(3,2),(3,4),(3,6),(5,2),(5,4),(5,6)\} \quad |T_{X}S| = 9$$

**5.** Exercise 1.3.14a





**6.** Exercise 1.3.15.e (enter yes or no)



## **7.** Exercise 2.1.7

## **8.** Exercise 2.1.22

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## **9.** Exercise 2.1.35

**10.** Exercise 2.1.42

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