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Problem Set 2

1

2.0/2.0 points (graded)

Which of the following hold?

☐ $\{0\} = \emptyset$

☒ $\{0, 1, 2\} = \{2, 0, 1, 1\}$

☐ $\{\{0\}, 1\} = \{0, \{1\}\}$



Submit

You have used 1 of 2 attempts

2

5.0/5.0 points (graded)

For any two sets **A** and **B**, add \subseteq or \supseteq to make the following statements true.

Hint: Venn Diagrams may help.

• $A \cap B$ ____ A

✓

• $A \cup B$ ____ A

✓

• $A - B$ ____ A

✓

• $A \cap B$ ____ $A \cup B$

✓

• $A - B$ ____ $A \Delta B$

✓

Submit

You have used 1 of 1 attempt

3

1.0/1.0 point (graded)

Which of the following statements hold for all A?

☒ $A \times \emptyset = \emptyset$

☐ $A \times \emptyset = A$

☐ $A \subseteq A^2$

☐ $A \in A^2$

☐ $A \times A^c = \emptyset$



You have used 1 of 3 attempts

Discussion

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- please clarify question # 4: Which of the following hold for a non-empty set A? 4
 There are 5 options. On the left side in each of the options, we have {subsets of A}. What exactly does that mean? The question is a bit confusing. Can you pleas...
- strict or proper subset? 2
 is there any difference between strict & proper subset?
- Question 5 2
 Your instructions for this question specifically state that C is a **non-empty** and fixed set. In one of the explanations, your contradictory case uses an empty s...
- Sets vs python sets 2
 The idea of sets that allow duplicates: `{0,1,2} = {2,0,1,1}` is different from python sets that do not allow duplicates: `set(2,0,1,1) == {0,1,2} # True` In what othe...

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