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Programming Assignment 2

Go through [these lecture notebooks](#) before attempting the assignment.

Click this link to download the [programming assignment](#) for topic 2 and complete the following problems.

Q1

1/1 point (graded)

Define A , B , and U as follows:

$$A = \{-6, 3, 4, 5\}$$

$$B = \{-6, 5, 13\}$$

$$U = A \setminus B \cup \{12, -2, -4\}$$

Which of the following is the correct output for `complement_of_union(A, B, U)`

☐ $\{-6, -2, 3, 4, 13\}, \{-6, -2, 4, 12\}$

☐ $\{-4, -2\}, \{-6, -4, 3, 5, 13\}$

☒ $\{-6, 3, 4, 5, 13\}, \{-4, -2, 12\}$ ✓

Submit

You have used 1 of 2 attempts

Q2

1/1 point (graded)

Like before, define A , B , and U as follows:

$$A = \{-6, 3, 4, 5\}$$

$$B = \{-6, 5, 13\}$$

$$U = A \setminus B \cup \{12, -2, -4\}$$

Which of the following is the correct output for `intersection_of_complements(A, B, U)`

☐ $\{-6, -2, 3, 4, 13\}, \{-4, -2, 12, 13\}$

☒ $\{-4, -2, 12, 13\}, \{-4, -2, 12\}$ ✓

☐ $\{-4, -2, 12\}, \{-4, -2, 12, 13\}$

Submit

You have used 1 of 2 attempts

Q3

1/1 point (graded)

Define A , B , S , and T as follows:

$$A = \{5\}$$

$$B = \{5\}$$

$$S = \{-1, 0\}$$

$$T = \{0\}$$

Which of the following is the correct output for `product_of_unions(A, B, S, T)`☒ $\{5\}, \{(5, -1), (5, 0)\}$ ✓☐ $(\{5, -1\}, \{5, 0\}), \{5\}$ ☐ $\{5\}, (\{5, -1\}, \{5, 0\})$

You have used 1 of 2 attempts

Q4

1/1 point (graded)

Again, define A , B , S , and T as follows:

$$A = \{5\}$$

$$B = \{5\}$$

$$S = \{-1, 0\}$$

$$T = \{0\}$$

Which of the following is the correct output for `union_of_products(A, B, S, T)`

☒ $\{(5, -1), (5, 0)\}, \{(5, -1), (5, 0)\}$ ✓

☐ $\{5, -1\}, \{5, 0\}$

☐ $(5, -1), (5, 0)$

Submit

You have used 1 of 2 attempts

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Q4: I diasgree...

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We were asked to return the answer as $A \cup B \times (S \cup T)$ --not the other way around. The correct answer is $\{(5), \{(5, -1), (5, 0)\}\}$.



Exercies 2.1

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Hi The code below is my answer to exercies 2.1 if I was wrong please help me. `def product_of_unions(A, B, S, T): union A B = A | B union S T = S | B product un...`

Homework topic 2 notebook says "Read the notebook on sets before attempting these exercises" Where do i find this thanks

? Thanks for the advice and sorry if being dumb but couldn't find this additional notebook and a bit stuck on getting started with python Thanks

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