Unit 9 - Week 6 - Parmeterized T-Norms, Parameterized S-Norms, Fuzzy Relation and its Operations

Assignment 6

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-03-11, 23:59 IST.

1) Let A and B are two fuzzy sets given as below. Find the intersection of fuzzy sets A and B for the universe of discourse $X = \{1, 2, 3, 4\}$ using T-norm minimum operator. *1 point*

$A = 0.8/1 + 0.4/2 + 0.3/3 + 0.9/4$
$B = 0.7/2 + 0.2/3$

- 0.8/1 + 0.7/2 + 0.2/3 + 0.9/4
- 0/1 + 0.5/2 + 0.1/3
- 0/1 + 0.4/2 + 0.2/3 + 0/4
- 0.7/1 + 0.5/2 + 0.3/3 + 0.6/4

No, the answer is incorrect.
Score: 0
Accepted Answers:
0/1 + 0.4/2 + 0.2/3 + 0/4

2) Let A and B are two fuzzy sets given as below. Find the intersection of fuzzy sets A and B for the universe of discourse $X = \{1, 2, 3, 4\}$ using T-norm algebraic product operator. *1 point*

$A = 0.8/1 + 0.4/2 + 0.3/3 + 0.9/4$
$B = 0.7/2 + 0.2/3$

- 0.7/1 + 0.8/2 + 0.1/3 + 0.6/4
- 0/1 + 0.2/2 + 0.02/3
- 0/1 + 0.24/2 + 0.06/3 + 0/4
- 0/1 + 0.28/2 + 0.06/3 + 0/4

No, the answer is incorrect.
Score: 0
Accepted Answers:
0/1 + 0.28/2 + 0.06/3 + 0/4

3) Let A and B are two fuzzy sets given as below. Find the intersection of fuzzy sets A and B for the universe of discourse $X = \{1, 2, 3, 4\}$ using T-norm bounded product operator. *1 point*

$A = 0.8/1 + 0.4/2 + 0.3/3 + 0.9/4$
$B = 0.7/2 + 0.2/3$

- 0/1 + 0.4/2 + 0.5/3 + 0/4
- 0/1 + 0.1/2 + 0/3+ 0/4
- 0/1 + 0.5/2 + 0.1/3 + 0/4
- 0/1 + 0.4/2 + 0.3/3 + 0/4

No, the answer is incorrect.
Score: 0
Accepted Answers:
0/1 + 0.1/2 + 0/3+ 0/4

4) Let A and B are two fuzzy sets given as below. Find the intersection of fuzzy sets A and B for the universe of discourse $X = \{1, 2, 3, 4\}$ using T-norm drastic product operator. *1 point*

$A = 0.8/1 + 0.4/2 + 0.3/3 + 0.9/4$
$B = 0.7/2 + 0.2/3$

- 0/1 + 0.4/2 + 0.3/3 + 0.9/4
- 0/1 + 0.3/2 + 0/3+ 0/4
- 0/1 + 0/2 + 0/3 + 0/4
- 0/1 + 0/2 + 0.3/3 + 0/4

No, the answer is incorrect.
Score: 0
Accepted Answers:
0/1 + 0/2 + 0/3 + 0/4

5) Let A and B are two fuzzy sets given as below. Find the union of fuzzy sets A and B for the universe of discourse $X = \{1, 2, 3, 4\}$ using S-norm maximum operator. *1 point*

$A = 0.8/1 + 0.4/2 + 0.3/3 + 0.9/4$
$B = 0.7/2 + 0.2/3$

- 0.8/1 + 0.7/2 + 0.3/3 + 0.9/4
- 0/1 + 0.3/2 + 0/3+ 0/4
- 0/1 + 0.5/2 + 0.1/3 + 0/4
- 0/1 + 0.40/2 + 0.3/3 + 0/4

No, the answer is incorrect.
Score: 0
Accepted Answers:
0.8/1 + 0.7/2 + 0.3/3 + 0.9/4

6) Let A and B are two fuzzy sets given as below. Find the union of fuzzy sets A and B for the universe of discourse $X = \{1, 2, 3, 4\}$ using S-norm algebraic sum operator. *1 point*

$A = 0.8/1 + 0.4/2 + 0.3/3 + 0.9/4$
$B = 0.7/2 + 0.2/3$

- 0.7/1 + 0.8/2 + 0.3/3 + 0.6/4
- 0.8/1 + 0.82/2 + 0.44/3+ 0.9/4
- 0.8/1 + 0.7/2 + 0.5/3 + 0.9/4
- 0.8/1 + 0.9/2 + 0.4/3 + 0.6/4

No, the answer is incorrect.
Score: 0
Accepted Answers:
0.8/1 + 0.82/2 + 0.44/3+ 0.9/4

7) Let A and B are two fuzzy sets given as below. Find the union of fuzzy sets A and B for the universe of discourse $X = \{1, 2, 3, 4\}$ using S-norm bounded sum operator. *1 point*

$A = 0.8/1 + 0.4/2 + 0.3/3 + 0.9/4$
$B = 0.7/2 + 0.2/3$

- 0.8/1 + 0.7/2 + 0.5/3 + 0.9/4
- 0.8/1 + 0.92/2 + 0.4/3+ 0.9/4
- 0.8/1 + 1.0/2 + 0.5/3 + 0.9/4
- 0.8/1 + 1.0/2 + 0.4/3 + 0.9/4

No, the answer is incorrect.
Score: 0
Accepted Answers:
0.8/1 + 1.0/2 + 0.5/3 + 0.9/4

8) Let A and B are two fuzzy sets given as below. Find the union of fuzzy sets A and B for the universe of discourse $X = \{1, 2, 3, 4\}$ using S-norm drastic sum operator. *1 point*

$A = 0.8/1 + 0.4/2 + 0.3/3 + 0.9/4$
$B = 0.7/2 + 0.2/3$

- 1/1 + 0.7/2 + 1/3 + 0.9/4
- 1/1 + 1/2 + 0.3/3+ 0.9/4
- 0.8/1 + 1/2 + 1/3 + 0.9/4
- 1/1 + 1/2 + 1/3 + 1/4

No, the answer is incorrect.
Score: 0
Accepted Answers:
0.8/1 + 1/2 + 1/3 + 0.9/4

9) For two crisp sets given as $A = \{1, 2, 3, 4\}$ and $B = \{9, 8, 7, 6\}$, which of the following Cartesian products will have the element (7,2)? *1 point*

- $A \times B$
- $B \times A$
- $A \times A$
- $B \times B$

No, the answer is incorrect.
Score: 0
Accepted Answers:
$B \times A$

10) For two crisp sets given as $A = \{1, 2, 3, 4\}$ and $B = \{9, 8, 7, 6\}$, which of the following Cartesian products will give the non-empty relation for "first element is less than second element"? *1 point*

- $A \times B$
- $B \times A$
- $A \times A$
- $B \times B$

No, the answer is incorrect.
Score: 0
Accepted Answers:
$A \times B$