WID3007 2018/2019

Tutorial 3

1. Is each of the following fuzzy sets a fuzzy number? Explain your answers.

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* 1. (b) (c)

1. Yes
2. No, not normal
3. No, not convex
4. Calculate the following:

a) [-1, 2] + [1, 3] = [0,5]

b) [-1, 2] - [1, 3] = [-4, 1]

c) [-1, 2] . [1, 3] = [-3, 6]

d) [-1, 2] / [1, 3] = [-1, 2]

1. Given that A, B , E, F are positive closed intervals and   ,   . Proof that: a)     

b)     

c)     

Let A = [x, y] and E = [x – 1, y + 1]

B = [a, b] and F = [a – 1, b + 1]

1. Let A and B be 2 fuzzy numbers whose membership functions are given by:











Calculate the fuzzy numbers A+B, A-B, AB and A/B.



2,6 /3, 2]al

1. In the ordinary arithmetic of real numbers, the equation a = a + b – b holds for any real numbers of a and b. Does this equation hold for fuzzy numbers? Explain your answer.

No

Let A = [x, y] and B = [a, b]