

Contemporary Data Processing Technology (CCOD)

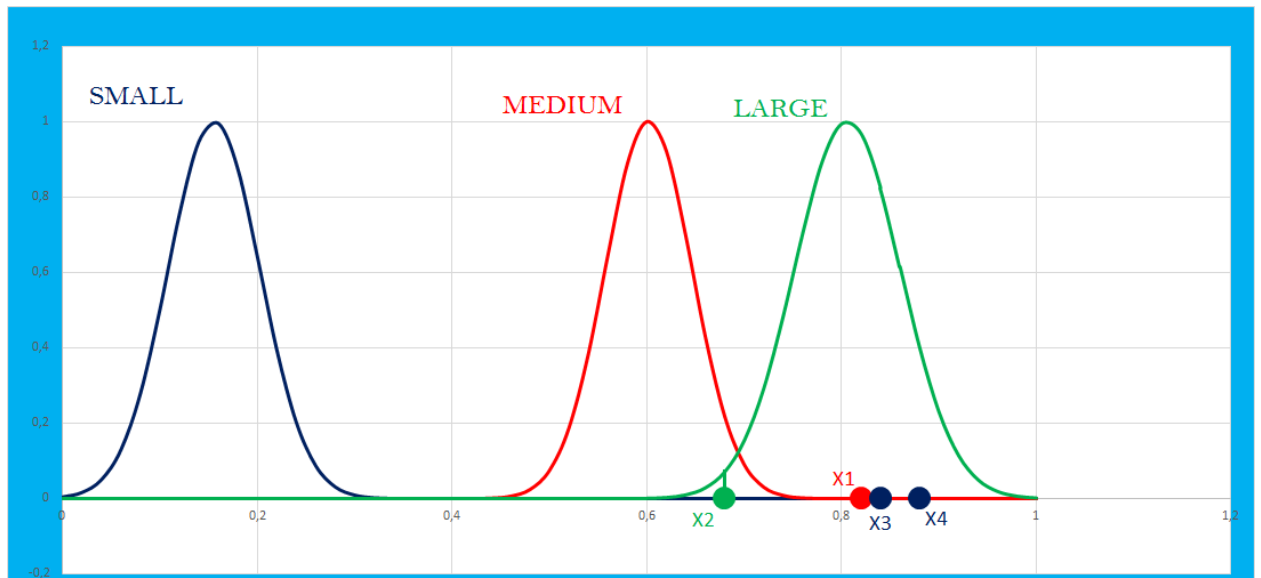
Lab 6 (October 14, 2016)

Byrshtin Alexandr, AS-36

Table of rules:

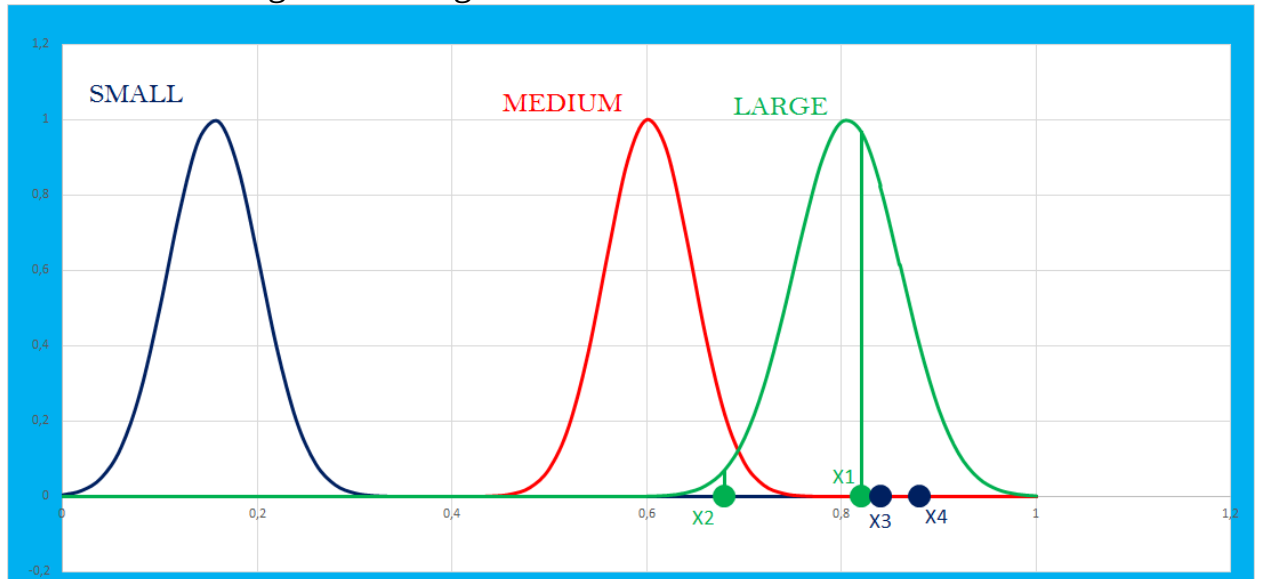
	x1	x2	x3	x4
Setosa	medium	large	small	small
	large	large	small	small
Versicolor	large	medium	medium	medium
	medium	medium	medium	medium
Virginia	large	large	large	large
	large	medium	large	large
Other	small	small	small	small

Rule 1: if x1 - medium if x2 - large if x3 - small if x4 – small than - A



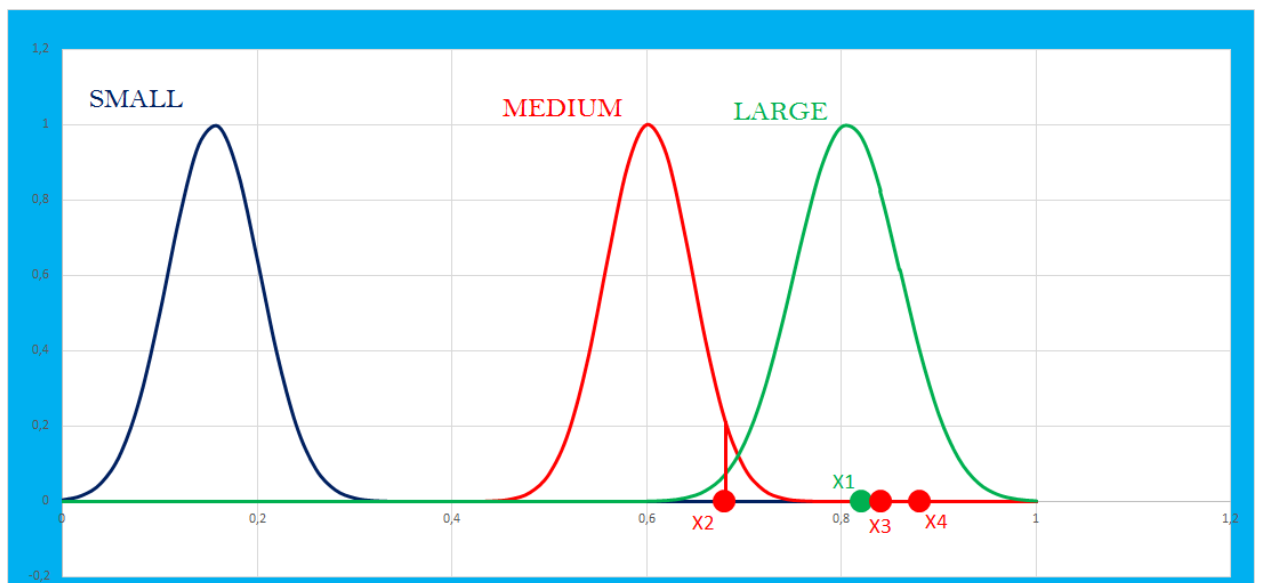
$$M = 0.000004241819182838806 \times 0.18799762333934 \times 2.9037999614074686e-43 \times 2.1589362780038613e-48 = 4.999321079053258e-97$$

Rule 2: if x1 - large if x2 - large if x3 - small if x4 - small then – A



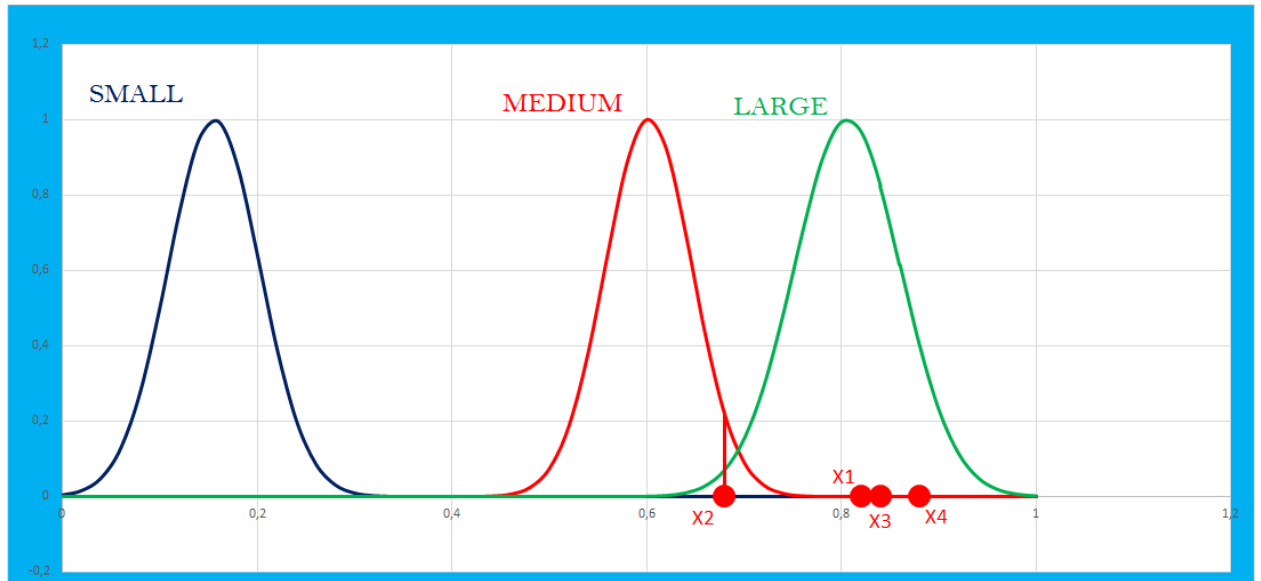
$$M = 0.8993519372080956 \times 0.18799762333934 \times 2.9037999614074686e-43 \times 2.1589362780038613e-48 = 1.0599577453376502e-91$$

Rule 3: if x1 - large if x2 - medium if x3 - medium if x4 - medium then – B



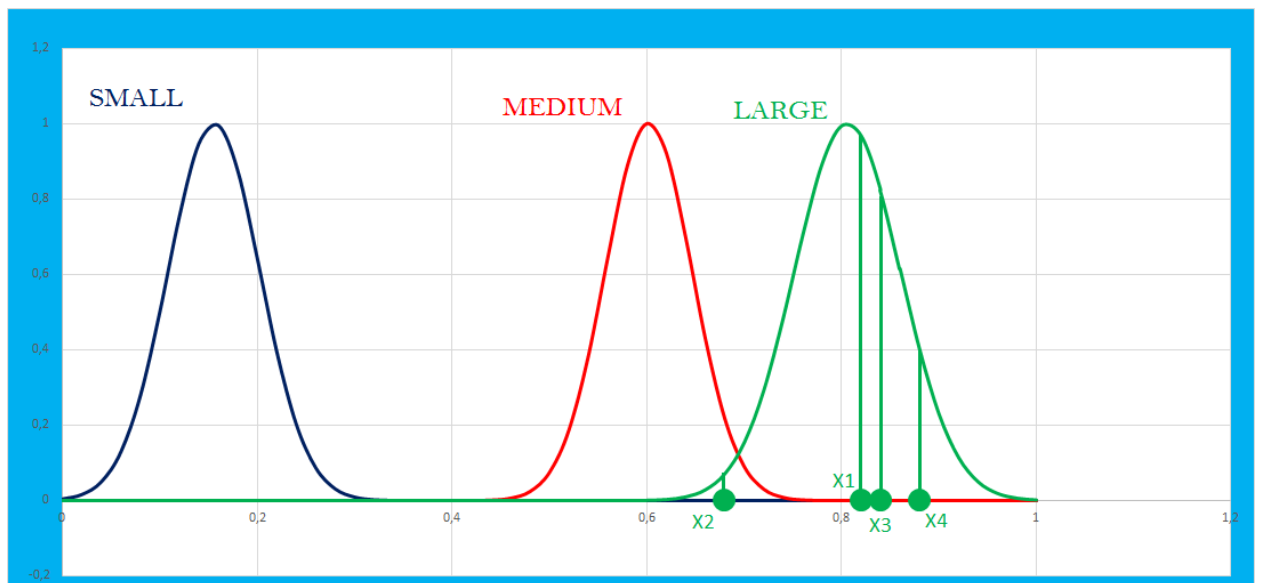
$$M = 0.8993519372080956 \times 0.12314767175686632 \times 4.854926256741348e-7 \times 3.763410141475123e-9 = 2.023578555616879e-16$$

Rule 4: if x1 - medium if x2 - medium if x3 - medium if x4 - medium then – B



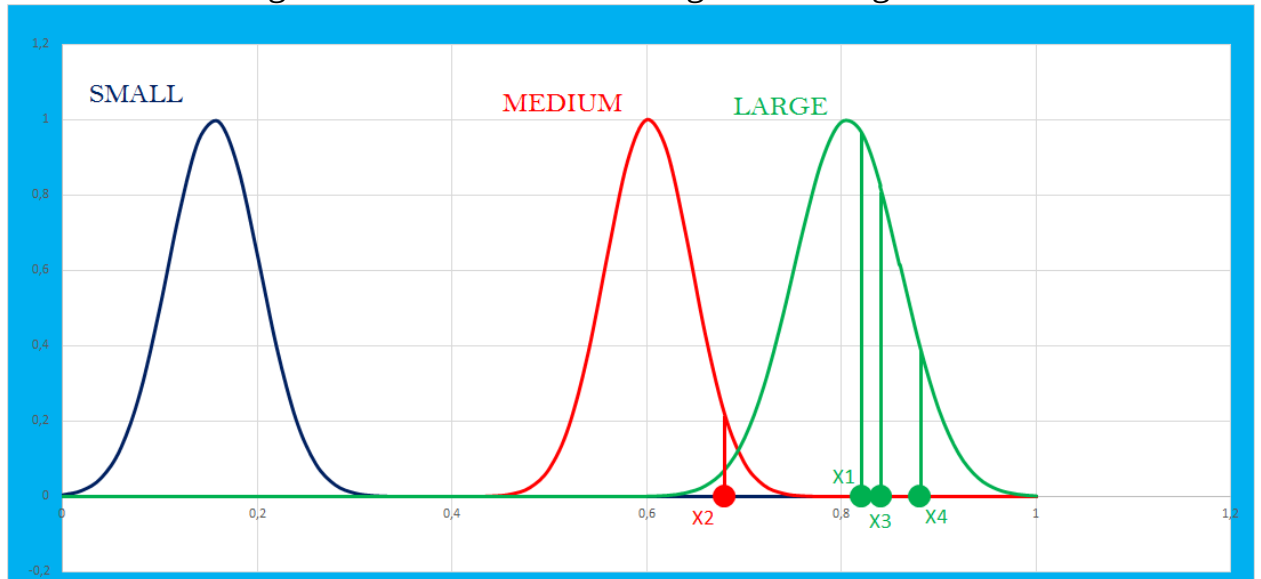
$$M = 0.000004241819182838806 \times 0.12314767175686632 \times 4.854926256741348e-7 \times 3.763410141475123e-9 = 9.544266243361414e-22$$

Rule 5: if x1 - large if x2 - large if x3 - large if x4 - large then – C



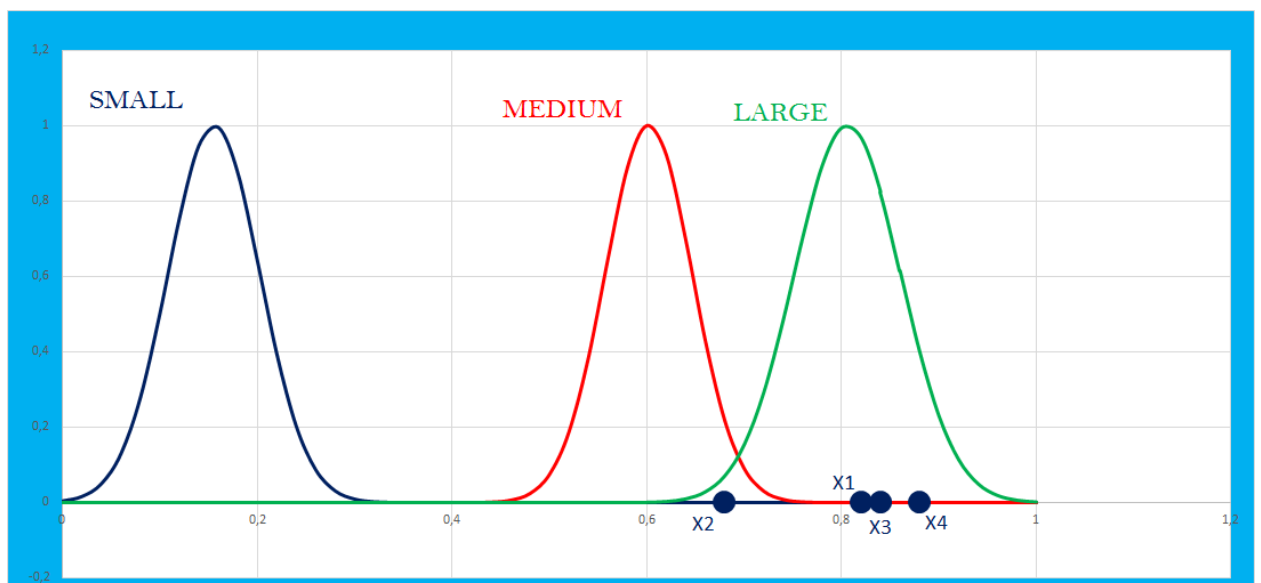
$$M = 0.8993519372080956 \times 0.18799762333934 \times 0.7333341218917013 \times 0.35378727692895384 = 0.04386580837184478$$

Rule 6: if x1 - large if x2 - medium if x3 - large if x4 - large then – C



$$M = 0.8993519372080956 \times 0.18799762333934 \times 0.7333341218917013 \times 0.35378727692895384 = 0.028734257778221254$$

Rule 7: if x1 - small if x2 - small if x3 - small if x4 – small then – Other



$$M = 8.277299669554271e-41 \times 1.1466620983436917e-25 \times 2.9037999614074686e-43 \times 2.1589362780038613e-48 = 5.950187557557744e-156$$

$$y = 0.39173458852855203 / 0.07260006615006624 = 5.395788314005477$$

Conformity table:

No	Family A	Family B	Family C
#1	A	B	C
#2	A	B	C
#3	A	B	C
#4	A	B	C
#5	A	B	C
#6	A	B	C
#7	A	B	B
#8	A	B	C
Success rate	100%	100%	87,50%