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12.py x ...
e > piotr > Dokumenty > RPIS > Lista9 > Z12.py > ...
import numpy

temperatura = [9.7,8.4,7.9,8.7,7.5,7.8,8.6,8.4,
wysokosc = [130,176,301,288,292,330,220,102,143]

#Wersja macierzowa

matrixX = []
for i in range(len(wysokosc)):
    row = [1,wysokosc[i]]
    matrixX.append(row)

X = numpy.array(matrixX)
Y = numpy.array(temperatura)

XT = X.T
X1 = numpy.linalg.inv(numpy.matmul(XT,X))
B = numpy.matmul(X1,numpy.matmul(XT, Y))

print(B)

t = 8,06 + 2,19 * 10^(-4) * h
```

```
Z13.py x
home > piotr > Dokumenty > RPIS > Lista9 > Z13.py > ...
1 import numpy
2
3 temperatura = [9.7,8.4,7.9,8.7,7.5,7.8,8.6,8.4,8.8,8.0,6.7,8.4,8.2,6.8,8.4,7.2]
4 wysokosc = [130,176,301,288,292,330,220,102,143,65,90,70,100,140,200,120]
5 szerokosc = [51.11, 50.664722222222, 50.2641666666667, 50.0613888888889, 50.0336111111111, 5
6 dlugosc = [17.0222222222222, 17.9269444444444, 19.0236111111111, 19.9383333333333, 22.0047222
7
8 #Wersja macierzowa
9
10 matrixX = []
11 for i in range(len(wysokosc)):
12     row = [1,szerokosc[i], dlugosc[i]]
13     matrixX.append(row)
14
15 X = numpy.array(matrixX)
16 Y = numpy.array(temperatura)
17
18 XT = X.T
19 X1 = numpy.linalg.inv(numpy.matmul(XT,X))
20 B = numpy.matmul(X1,numpy.matmul(XT, Y))
21
22 print(B)
23

t = 28,53 - 0,33 * s - 0,18*d
```