

```

# correction tests non parametriques - Initiation à R

#exercice 1
espA=c(242,253,271,292,305,332,335,337,338,350,357,364,365,371,372,385,401,
402,410,412,418,423,427,429,432,446,451,454,460,470,474,481,497)
espB=c(202,203,208,233,251,258,271,282,283,301,308,314,327,329,330,350,356,
378,385,386,387,399,411,422,428,446)
result1=wilcox.test(espA, espB, paired = F, alternative = "two.sided") #
test bilatéral
result1

# exercice 2
NM=c(9.2,10,9,9.4,10.1,9.5,10,10.3,10.2,10.2,9.8,10.1) #nouvelle methode
MR=c(9.5,9,8.8,9.5,9.1,10,10.1,9.3,9,9.7,9.1,9.3) #methode de
reference
result2=wilcox.test(NM, MR, paired = T, alternative = "two.sided") #test
apparie
result2
plot(MR,NM,asp=1)
abline(a=0,b=1)

# exercice 3
note=c(71,67,55,64,82,66,74,58,79,61,78,46,84,93,72,54,78,86,48,52,67,95,70
,43,70,73,57,64,60,83,73,40,78,70,64,86,76,62,95,66)
result3=wilcox.test(note, mu=66, alternative = "two.sided")
result3
result4=wilcox.test(note, mu=75, alternative = "two.sided")
result4

# exercice 4
fx=c(12,15,18,22,3,7,4,17,20)
fy=c(14,7,20,18,8,3,6,12,19)
rs=cor.test(fx,fy,method="spearman")
rs

# exercice 5
e1=c(3,9.8,2,5.2,3.6,5.9,8.5,9.4)
e2=c(9.3,12.5,11.3,7.6,3.2,8.6,7.2,14.2,9.6,3.2)
result5=wilcox.test(e1, e2, paired = F, alternative = "two.sided")
result5

# exercice 6
silice=c(6,4,12,1,10,5,8,2,11,7,3,9)
fer=c(3,9,11,2,12,4,10,5,8,1,6,7)
rs2=cor.test(silice,fer,method="spearman")
rs2

# exercice 7
ob=c(29,19,18,25,17,10,15,11)

result6=chisq.test(ob) # test le vecteur contre l'hypothese
d'equiprobabilité
result6 # avec le chi-2

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