```
> AL132709seq[168176:168250]
 [1] "t" "t" "g" "g" "a" "c" "c" "t" "c" "a" "g" "a" "g" "t" "t" "t" "c" "a" "g" "a" "c" "a" "c" "g" "t"
[26] "a" "g" "t" "a" "t" "t" "c" "a" "t" "c" "g" "t" "c" "c" "a" "t" "g" "a" "c" "t" "c" "a" "a" "a" "a" "c"
[51] \ "g" \ "c" \ "a" \ "c" \ "a" \ "c" \ "a" \ "t" \ "g" \ "g" \ "t" \ "c" \ "a" \ "t" \ "t" \ "g" \ "g" \ "t" \ "c" \ "a" \ "t" \ "t" \ "g" \ "g" \ "t" \ "c" \ "a" \ "t" \ "t" \ "g" \ "g" \ "t" \ "c" \ "a" \ "t" \ "t" \ "g" \ "g" \ "t" \ "c" \ "a" \ "t" \ "t" \ "g" \ "g" \ "t" \ "c" \ "a" \ "t" \ "t" \ "g" \ "g" \ "t" \ "c" \ "a" \ "t" \ "t" \ "g" \ "g" \ "t" \ "c" \ "a" \ "t" \ "t" \ "g" \ "g" \ "t" \ "c" \ "a" \ "t" \ "t" \ "g" \ "g" \ "t" \ "c" \ "a" \ "t" \ "t" \ "g" \ "g" \ "t" \ "c" \ "a" \ "t" \ "t" \ "g" \ "g" \ "t" \ "c" \ "a" \ "t" \ "t" \ "g" \ "g" \ "t" \ "c" \ "a" \ "t" \ "t" \ "g" \ "g" \ "t" \ "c" \ "a" \ "t" \ "t"
> H1<-AL132709seq[168176:168250]
> length(H1)
[1] 75
> AL132709seq[139624:139553]
[1] "a" "c" "c" "t" "a" "g" "t" "t" "a" "c" "t" "a" "c" "t" "g" "g" "t"
[18] "g" "a" "c" "c" "a" "c" "c" "g" "c" "a" "t" "a" "c" "t" "c" "a" "g"
[35] "t" "a" "t" "a" "c" "a" "c" "t" "a" "c" "t" "t" "a" "t" "g" "c" "a"
[52] "c" "a" "g" "a" "c" "c" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a"
[69] "g" "g" "t" "g"
> H2<-AL132709seq[139624:139553]
> length(H2)
[1] 72
> AL132709seq[137723:137652]
[1] "a" "c" "c" "t" "a" "g" "c" "t" "a" "c" "t" "a" "c" "t" "g" "a" "t"
[18] \ "g" \ "a" \ "c" \ "c" \ "a" \ "c" \ "g" \ "c" \ "a" \ "t" \ "a" \ "c" \ "t" \ "c" \ "a" \ "g"
[35] "t" "a" "t" "c" "t" "g" "t" "t" "a" "c" "t" "t" "a" "t" "g" "c" "a"
[52] "c" "a" "g" "a" "c" "c" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a"
[69] "g" "g" "t" "a"
> H3<-AL132709seq[137723:137652]
> AL132709seq[155570:155499]
 [1] "a" "c" "c" "t" "a" "g" "c" "t" "a" "c" "t" "a" "c" "t" "g" "a" "c"
[18] "g" "a" "c" "c" "a" "c" "c" "g" "c" "a" "t" "a" "c" "t" "c" "a" "g" [35] "a" "a" "t" "g" "t" "a" "c" "t" "a" "c" "t" "t" "t" "a" "t" "g" "c" "a"
[52] "c" "a" "g" "a" "c" "c" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a"
[69] "g" "g" "t" "a"
> H4<-AL132709seq[155570:155499]
> length(H4)
> AL132709seq[148929:148858]
[1] "a" "c" "c" "t" "a" "g" "c" "t" "a" "c" "t" "a" "c" "t" "g" "g" "t"
[18] "g" "a" "c" "c" "a" "c" "c" "g" "c" "a" "t" "a" "c" "t" "c" "a" "g"
[35] "t" "a" "t" "g" "t" "a" "c" "t" "a" "c" "t" "t" "a" "t" "a" "c" "a"
[52] "c" "a" "g" "a" "c" "c" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a"
[69] "g" "g" "a" "a"
> H5<-AL132709seq[148929:148858]
> length(H5)
[1] 72
> AL132709seq[138673:138602]
 [1] "a" "c" "c" "t" "a" "g" "c" "t" "a" "c" "t" "a" "c" "t" "g" "a" "t"
[18] "g" "g" "c" "c" "a" "c" "c" "g" "c" "a" "t" "a" "c" "t" "c" "a" "g"
[35] "t" "a" "t" "a" "c" "a" "c" "t" "a" "c" "t" "t" "a" "t" "g" "c" "a"
[52] "c" "a" "a" "a" "c" "c" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a"
[69] "g" "g" "t" "a"
> H6<-AL132709seq[138673:138602]
> length(H6)
[1] 72
> AL132709seq[152651:152577]
[1] "a" "c" "c" "t" "g" "g" "t" "t" "a" "c" "t" "a" "c" "t" "g" "t" "t" "t"
[19] "a" "t" "g" "g" "c" "c" "g" "c" "a" "t" "a" "c" "t" "c" "a" "g" "a" "a"
[37] "c" "c" "t" "a" "c" "t" "a" "c" "t" "t" "a" "t" "g" "c" "a"
[55] "c" "a" "g" "a" "c" "c" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a" "g"
[73] "g" "t" "a"
> H7<-AL132709seq[152651:152577]
> length(H7)
> AL132709seq[146793:146719]
[1] "a" "c" "c" "t" "g" "g" "t" "t" "a" "c" "t" "a" "c" "t" "g" "t" "t" "t"
[19] "a" "c" "c" "a" "c" "c" "g" "t" "a" "a" "c" "c" "t" "c" "a" "a" "t" "a"
[37] "c" "c" "t" "g" "c" "t" "a" "c" "t" "a" "c" "t" "a" "c" "t" "a" "c" "a"
```

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[55] "c" "a" "g" "a" "c" "t" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a" "g'
[73] "g" "t" "t"
> H8<-AL132709seq[146793:146719]
> length(H8)
[1] 75
> AL132709seq[134553:134482]
[1] "a" "c" "c" "t" "a" "g" "c" "t" "a" "c" "t" "a" "c" "t" "c" "g" "t" "g"
[19] "a" "c" "c" "a" "c" "c" "t" "c" "a" "t" "a" "c" "t" "c" "a" "g" "t" "g"
[37] "t" "a" "t" "g" "c" "t" "a" "c" "t" "t" "a" "t" "g" "c" "a" "g"
[55] "a" "c" "c" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a" "g" "g" "t" "a"
> H9<-AL132709seq[134553:134482]
> length(H9)
[1] 72
> AL132709seq[132469:132398]
[1] "a" "c" "c" "t" "a" "g" "c" "t" "a" "c" "t" "a" "c" "t" "g" "a" "c" "g"
[19] "a" "c" "c" "a" "c" "c" "g" "c" "a" "t" "a" "c" "t" "c" "a" "g" "t" "a"
[37] "t" "a" "c" "g" "c" "t" "a" "c" "t" "t" "a" "t" "g" "c" "a" "c" "a" "g"
[55] "a" "t" "c" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a" "g" "g" "t" "a"
> H10<-AL132709seq[132469:132398]
> length(H10)
[1] 72
> AL132709seq[171766:171695]
[1] "a" "c" "c" "t" "g" "g" "a" "t" "a" "c" "t" "a" "c" "t" "a" "c" "t" "g" [19] "a" "c" "c" "a" "c" "c" "g" "c" "a" "t" "a" "c" "t" "c" "a" "g" "t" "a"
[37] "a" "c" "t" "g" "c" "c" "a" "c" "t" "t" "a" "t" "g" "t" "c" "c" "a" "g"
[55] "a" "c" "c" "t" "t" "c" "a" "g" "a" "c" "t" "c" "a" "g" "g" "t" "t"
> H11<-AL132709seq[171766:171695]
> length(H11)
[1] 72
> AL132709seq[135542:135471]
[1] "a" "c" "c" "t" "a" "g" "c" "t" "a" "c" "t" "a" "c" "t" "g" "a" "t" "g"
[19] "a" "c" "c" "a" "c" "c" "g" "c" "a" "t" "a" "c" "t" "c" "a" "g" "a" "a"
[37] "a" "a" "c" "g" "c" "t" "a" "c" "t" "t" "a" "t" "g" "c" "a" "c" "a" "g"
[55] "a" "t" "c" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a" "g" "g" "c" "a"
> H12<-AL132709seq[135542:135471]
> length(H12)
[1] 72
> AL132709seq[153488:153414]
[1] "a" "c" "c" "t" "g" "g" "t" "c" "a" "c" "t" "a" "c" "c" "a" "c" "t" "g"
[19] "a" "c" "c" "a" "c" "a" "c" "a" "c" "a" "c" "t" "c" "a" "g" "t" "a"
[37] "c" "g" "t" "g" "t" "c" "a" "c" "t" "t" "a" "t" "a" "g" "t" "a" "c" "a"
 [55] \ "c" \ "a" \ "g" \ "a" \ "c" \ "c" \ "t" \ "t" \ "g" \ "a" \ "g" \ "a" \ "c" \ "t" \ "c" \ "c" \ "a" \ "g" 
[73] "g" "t" "t"
> H13<-AL132709seq[153488:153414]
> length(H13)
[1] 75
> AL132709seq[145774:145703]
[1] "a" "t" "c" "t" "a" "g" "t" "c" "a" "c" "t" "a" "c" "t" "g" "a" "t" "g"
[19] "a" "c" "a" "a" "c" "c" "a" "c" "a" "t" "a" "c" "t" "c" "a" "g" "t" "a"
[37] "t" "a" "t" "g" "c" "t" "a" "c" "t" "t" "a" "t" "g" "t" "a" "c" "a" "g"
[55] "a" "c" "t" "t" "t" "a" "a" "g" "a" "c" "t" "c" "c" "a" "g" "g" "t" "t"
> H14<-AL132709seq[145774:145703]
> length(H14)
[1] 72
> AL132709seq[151720:151647]
[1] "a" "c" "c" "t" "g" "g" "t" "c" "a" "c" "t" "a" "c" "t" "g" "g" "t" "g"
[19] "a" "c" "c" "a" "c" "c" "g" "t" "a" "t" "a" "c" "t" "c" "a" "g" "t" "a"
[37] "t" "g" "t" "g" "t" "a" "c" "t" "t" "g" "t" "g" "g" "t" "a" "c" "a" "a"
[55] "a" "g" "a" "t" "c" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a" "g" "g"
[73] "t" "t"
> H15<-AL132709seq[151720:151647]
> length(H15)
```

[1] 74

## > AL132709seq[164433:164362] [1] "a" "c" "c" "t" "a" "g" "t" "t" "a" "c" "t" "a" "c" "a" "g" "g" "t" "g" [19] "a" "c" "c" "a" "c" "c" "g" "c" "a" "t" "a" "t" "t" "t" "a" "g" "t" "a" [37] "t" "a" "a" "a" "c" "c" "a" "c" "t" "t" "a" "t" "a" "t" "a" "c" "a" "g" [55] "a" "c" "c" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a" "g" "g" "t" "t" > H16<-AL132709seq[164433:164362] > length(H16) [1] 72 > AL132709seq[149496:149422] [1] "a" "c" "c" "t" "g" "g" "t" "t" "a" "c" "t" "a" "c" "t" "g" "t" "t" "g" [19] "a" "c" "g" "g" "c" "c" "g" "c" "a" "t" "a" "c" "t" "c" "a" "c" "a" "a" [37] "c" "c" "c" "a" "c" "t" "a" "c" "t" "t" "a" "t" "t" "a" "t" "g" "c" "a" [55] "c" "a" "g" "a" "t" "c" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a" "g" [73] "g" "t" "t" > H17<-AL132709seq[149496:149422] > length(H17) [1] 75 > AL132709seq[140595:140524] [1] "a" "c" "c" "t" "a" "g" "c" "t" "a" "c" "t" "a" "c" "t" "g" "a" "t" "g" [19] "a" "c" "c" "a" "c" "c" "g" "c" "a" "t" "a" "c" "t" "c" "a" "g" "t" "a" [37] "g" "a" "t" "g" "t" "c" "a" "c" "t" "t" "a" "t" "g" "c" "a" "g" "a" "g" [55] "a" "c" "c" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a" "g" "a" "c" "a" > H18<-AL132709seq[140595:140524] > length(H18) [1] 72 > AL132709seq[166229:166160] [1] "a" "c" "c" "t" "a" "a" "c" "t" "a" "c" "t" "a" "c" "t" "g" "g" "t" "g" [19] "a" "c" "c" "a" "c" "c" "g" "g" "a" "t" "a" "c" "t" "c" "a" "g" "t" "a" [37] "t" "g" "t" "t" "a" "c" "t" "t" "a" "t" "g" "c" "a" "c" "a" "g" "a" "t" [55] "c" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a" "g" "g" "t" "a" > H19<-AL132709seq[166229:166160] > length(H19) [1] 70 > AL132709seq[154547:154476] [1] "t" "t" "c" "t" "a" "g" "t" "t" "a" "c" "t" "a" "c" "t" "g" "a" "t" "g" [19] "a" "c" "a" "a" "t" "c" "a" "c" "a" "t" "a" "c" "t" "c" "a" "a" "t" "g" [37] "t" "g" "t" "a" "c" "t" "a" "c" "t" "t" "a" "t" "g" "t" "a" "c" "a" "g" [55] "a" "c" "t" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a" "g" "g" "t" "a" > H20<-AL132709seq[154547:154476] > length(H20) [1] 72 > AL132709seq[131508:131439] [1] "a" "c" "c" "t" "a" "g" "c" "t" "a" "c" "t" "a" "c" "t" "g" "a" "t" "g" [19] "a" "c" "c" "a" "t" "c" "g" "t" "a" "c" "t" "c" "a" "g" "t" "a" "t" "a" [37] "t" "g" "t" "c" "a" "c" "t" "t" "a" "t" "g" "t" "a" "c" "a" "g" "a" "c" [55] "c" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a" "g" "a" "c" "a"

> H21<-AL132709seq[131508:131439]

> H22<-AL132709seq[145122:145048]

> AL132709seq[167225:167151]

[1] "a" "c" "c" "t" "a" "g" "t" "t" "a" "c" "t" "a" "t" "t" "t" "t" "g" "a" [19] "a" "c" "g" "a" "c" "c" "g" "t" "a" "t" "a" "c" "t" "t" "a" "g" "a" "a" [37] "c" "c" "t" "a" "t" "t" "a" "c" "t" "a" "c" "t" "a" "c" "t" "g" "c" "a" [55] "c" "a" "c" "a" "c" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "c" "a" "g"

[1] "a" "c" "t" "c" "g" "g" "t" "c" "a" "c" "t" "a" "c" "t" "t" "t" "t" "t" "g" [19] "a" "c" "c" "a" "c" "c" "g" "t" "a" "t" "c" "t" "t" "c" "a" "g" "t" "t" [37] "c" "c" "t" "a" "c" "g" "a" "c" "t" "t" "g" "a" "c" "a" "c" "a" [55] "c" "a" "g" "a" "t" "c" "t" "c" "c" "a" "a" "a" "c" "t" "c" "c" "c" "a" "a"

> AL132709seq[145122:145048]

> length(H21) [1] 70

[73] "g" "t" "t"

> length(H22) [1] 75

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[73] "g" "t" "t"
> H23<-AL132709seq[167225:167151]
> length(H23)
[1] 75
> AL132709seq[148004:147935]
[1] "a" "c" "c" "t" "g" "g" "t" "t" "a" "a" "t" "a" "c" "t" "g" "a" "t" "g"
[19] "a" "c" "c" "a" "c" "a" "c" "t" "c" "a" "g" "t" "g" "c" "g" "t" "a" "t"
[37] "t" "a" "c" "t" "t" "g" "t" "g" "g" "t" "g" "c" "a" "c" "a" "g" "a" "c"
[55] "c" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a" "g" "g" "t" "t"
> H24<-AL132709seq[148004:147935]
> length(H24)
> AL132709seq[136822:136751]
[1] "a" "c" "c" "t" "a" "g" "c" "t" "a" "c" "c" "a" "c" "t" "g" "a" "c" "a"
[19] "a" "c" "t" "a" "c" "c" "g" "t" "a" "t" "a" "c" "t" "g" "a" "g" "t" "g"
[37] "t" "a" "t" "a" "c" "t" "a" "c" "t" "c" "a" "t" "g" "c" "a" "t" "a" "g"
[55] "a" "c" "c" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a" "g" "a" "c" "a"
> H25<-AL132709seq[136822:136751]
> length(H25)
[1] 72
> AL132709seq[128363:128289]
[1] "a" "c" "t" "c" "g" "t" "t" "c" "g" "c" "t" "a" "c" "t" "g" "t" "c" "g"
[19] "g" "c" "c" "a" "c" "a" "c" "a" "c" "a" "c" "a" "c" "a" "g" "t" "a"
[37] "c" "c" "t" "c" "c" "t" "a" "c" "t" "t" "a" "t" "g" "a" "t" "t" "c" "a"
[55] "c" "g" "g" "a" "c" "c" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a" "a"
[73] "g" "t" "t"
> H26<-AL132709seq[128363:128289]
> length(H26)
[1] 75
> AL132709seq[133438:133369]
[1] "a" "c" "c" "a" "a" "g" "t" "c" "a" "c" "a" "a" "c" "t" "g" "a" "t" "g"
[19] "a" "c" "c" "a" "c" "a" "g" "c" "a" "c" "a" "c" "t" "c" "a" "g" "t" "a"
[37] "t" "g" "t" "t" "a" "c" "t" "t" "a" "t" "g" "t" "a" "c" "a" "g" "a" "c"
[55] "c" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "g" "g" "g" "t" "a"
> H27<-AL132709seq[133438:133369]
> length(H27)
[1] 70
> AL132709seq[180473:180397]
[1] "a" "c" "c" "t" "a" "g" "t" "t" "a" "c" "t" "a" "c" "t" "c" "a" "t" "a"
[19] "c" "g" "c" "a" "c" "c" "c" "c" "g" "t" "a" "g" "a" "c" "t" "t" "a" "g"
[37] "t" "t" "t" "a" "t" "a" "a" "g" "a" "c" "t" "a" "a" "t" "a" "t" "g" "g"
[55] "g" "a" "c" "a" "g" "a" "c" "a" "t" "a" "g" "a" "g" "a" "c" "t" "c" "c"
[73] "a" "g" "g" "t" "a"
> H28<-AL132709seq[180473:180397]
> length(H28)
[1] 77
> AL132709seq[142597:142509]
[1] "a" "c" "c" "t" "g" "a" "c" "a" "a" "c" "t" "a" "c" "t" "g" "t" "t" "c"
[19] "a" "c" "c" "a" "c" "c" "g" "a" "a" "t" "a" "c" "a" "c" "a" "c" "a" "c"
[37] "a" "t" "g" "t" "a" "c" "g" "a" "c" "c" "a" "a" "c" "a" "t" "a" "t" "a"
[55] "c" "t" "t" "c" "t" "t" "a" "t" "a" "t" "g" "t" "a" "t" "a" "g" "a"
[73] "c" "t" "t" "g" "a" "a" "a" "c" "t" "c" "c" "a" "g" "g" "t" "t"
> H29<-AL132709seq[142597:142509]
> length(H29)
[1] 89
> AL132709seq[178148:178075]
[1] "a" "c" "c" "t" "g" "g" "t" "t" "a" "c" "t" "a" "c" "t" "c" "t" "a" "a"
[19] "c" "c" "t" "c" "c" "c" "a" "c" "a" "g" "a" "c" "t" "t" "a" "g" "t" "t"
[37] "t" "t" "t" "a" "a" "a" "a" "c" "t" "a" "a" "t" "t" "t" "c" "g" "g" "t"
[55] "a" "g" "a" "c" "a" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a" "g" "g"
[73] "t" "a"
> H30<-AL132709seq[178148:178075]
> length(H30)
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[1] 74
> AL132709seq[156819:156747]
 [1] "a" "a" "c" "t" "a" "c" "t" "a" "t" "a" "c" "t" "a" "c" "c" "g" "g" "t"
[19] "g" "a" "c" "c" "a" "c" "c" "g" "a" "a" "t" "a" "c" "t" "c" "a" "g" "a"
[37] "a" "t" "a" "t" "g" "t" "c" "a" "c" "t" "t" "a" "t" "g" "t" "a" "c" "a"
[55] "a" "a" "c" "t" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a" "g" "a" "c"
[73] "a"
> H31<-AL132709seq[156819:156747]
> length(H31)
[1] 73
> AL132709seq[169743:169666]
[1] "c" "c" "c" "t" "g" "g" "t" "t" "a" "c" "t" "a" "t" "t" "a" "c" "t" "g"
[19] "a" "c" "a" "a" "c" "c" "c" "c" "c" "a" "t" "a" "c" "t" "c" "a" "g" "t" "c"
[37] "a" "c" "t" "c" "c" "a" "a" "c" "t" "t" "a" "t" "t" "g" "t" "c" "a" "a"
[55] "a" "c" "a" "t" "a" "g" "a" "c" "c" "t" "t" "t" "a" "g" "a" "c" "t" "c"
[73] "c" "a" "g" "g" "t" "t"
> H32<-AL132709seq[169743:169666]
> length(H32)
[1] 78
> AL132709seq[129680:129609]
[1] "a" "c" "c" "t" "a" "g" "t" "t" "a" "g" "t" "a" "c" "t" "g" "a" "t" "g"
[19] "a" "c" "c" "a" "t" "a" "a" "c" "c" "t" "a" "c" "c" "c" "c" "a" "g" "a" "a"
[37] "g" "c" "a" "g" "t" "c" "a" "c" "t" "t" "a" "c" "g" "g" "a" "t" "a" "g"
[55] "a" "c" "c" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a" "g" "g" "t" "a"
> H33<-AL132709seq[129680:129609]
> length(H33)
[1] 72
> AL132709seq[175950:175879]
[1] "a" "c" "c" "t" "a" "g" "t" "t" "a" "c" "t" "a" "c" "t" "c" "a" "t" "g"
 [19] \ "g" \ "g" \ "a" \ "c" \ "c" \ "c" \ "a" \ "c" \ "a" \ "g" \ "a" \ "c" \ "t" \ "t" \ "a" \ "g" \ "g" \ "a" \ "g" \ "g
[37] "a" "c" "c" "t" "a" "a" "a" "a" "c" "t" "a" "a" "t" "t" "t" "g" "g" "g"
[55] "a" "t" "a" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a" "g" "g" "t" "a"
> H34<-AL132709seq[175950:175879]
> length(H34)
[1] 72
> AL132709seq[191680:191609]
[1] "a" "t" "c" "t" "g" "g" "t" "t" "a" "c" "t" "a" "c" "t" "c" "a" "t" "a"
[19] "a" "g" "a" "c" "c" "c" "c" "a" "g" "a" "c" "t" "t" "t" "a" "g" "t"
[37] "t" "a" "c" "t" "a" "a" "a" "a" "c" "t" "a" "a" "t" "t" "t" "g" "g" "g"
[55] "a" "c" "a" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a" "g" "g" "t" "a"
> H35<-AL132709seq[191680:191609]
> length(H35)
[1] 72
> AL132709seq[182043:181969]
 [1] "a" "c" "c" "t" "g" "g" "t" "c" "a" "c" "t" "a" "c" "t" "t" "a" "t" "a"
[19] "g" "t" "a" "c" "c" "c" "c" "a" "a" "a" "g" "a" "c" "t" "t" "t" "g" "t"
[37] "t" "g" "t" "a" "a" "a" "a" "a" "c" "t" "a" "a" "t" "t" "t" "g" "g" "g"
[55] "t" "a" "g" "a" "c" "g" "t" "t" "g" "a" "g" "a" "c" "t" "c" "c" "a" "g"
[73] "g" "t" "a"
> H36<-AL132709seq[182043:181969]
> length(H36)
[1] 75
> AL132709seq[183412:183335]
[1] "a" "c" "c" "t" "a" "g" "t" "t" "a" "c" "t" "a" "c" "t" "c" "t" "c" "a" "t" "a"
[19] "a" "c" "c" "a" "c" "c" "t" "c" "c" "a" "c" "a" "g" "a" "c" "t" "t" "a"
[37] "g" "t" "t" "g" "t" "g" "a" "a" "a" "a" "c" "t" "a" "a" "t" "t" "c" "g"
 [55] \ "g" \ "g" \ "a" \ "g" \ "a" \ "c" \ "a" \ "t" \ "t" \ "g" \ "a" \ "g" \ "a" \ "c" \ "t" \ "c" 
[73] "t" "a" "g" "a" "c" "a"
> H37<-AL132709seq[183412:183335]
> length(H37)
[1] 78
> AL132709seq[185108:185034]
 [1] "a" "c" "c" "t" "g" "g" "t" "t" "a" "c" "t" "a" "c" "t" "c" "a" "t" "g"
```

```
[19] "g" "t" "a" "c" "c" "c" "c" "a" "t" "a" "g" "a" "c" "t" "t" "t" "g" "t"
[37] "c" "c" "t" "a" "a" "a" "a" "a" "c" "t" "a" "a" "t" "t" "t" "g" "g" "g"
[55] "t" "a" "t" "a" "c" "g" "t" "t" "a" "a" "g" "a" "c" "t" "c" "c" "a" "g"
[73] "g" "t" "a"
> H38<-AL132709seq[185108:185034]
> length(H38)
[1] 75
> AL132709seq[158545:158469]
[1] "a" "c" "t" "t" "g" "a" "t" "c" "a" "c" "c" "a" "c" "t" "a" "c" "c" "g"
[19] "a" "a" "c" "a" "c" "c" "g" "t" "a" "t" "a" "a" "a" "t" "c" "a" "g" "t"
[37] "g" "t" "c" "t" "a" "c" "t" "a" "c" "t" "t" "a" "t" "g"
[55] "t" "a" "c" "g" "g" "a" "c" "t" "c" "t" "g" "a" "g" "a" "c" "t" "c" "c"
[73] "a" "a" "t" "c" "a"
> H39<-AL132709seq[158545:158469]
> length(H39)
[1] 77
> AL132709seq[165359:165287]
[1] "a" "c" "t" "t" "a" "g" "t" "t" "a" "c" "c" "a" "c" "t" "g" "g" "t" "g"
[19] "a" "c" "c" "a" "c" "c" "g" "t" "a" "t" "a" "t" "t" "c" "a" "g" "t" "a"
[37] "c" "c" "t" "a" "c" "t" "a" "c" "t" "t" "a" "t" "a" "c" "t" "t" "t"
[55] "c" "t" "t" "t" "t" "c" "t" "t" "a" "g" "a" "t" "c" "c" "a" "a" "a" "a"
[73] "a"
> H40<-AL132709seq[165359:165287]
> length(H40)
[1] 73
> AL132709seq[144210:144134]
 [1] "a" "c" "c" "t" "g" "g" "t" "t" "a" "c" "t" "a" "c" "t" "a" "c" "t" "g"
[19] "a" "c" "c" "a" "c" "c" "a" "c" "a" "t" "a" "c" "t" "c" "a" "a" "t" "t"
[37] "t" "c" "c" "a" "c" "t" "a" "c" "t" "t" "a" "t" "c" "a" "t" "t" "c" "a"
[55] "c" "a" "g" "a" "a" "a" "c" "a" "t" "c" "a" "c" "c" "g" "t" "t" "c"
[73] "a" "a" "g" "t" "c"
> H41<-AL132709seq[144210:144134]
> length(H41)
[1] 77
> AL132709seq[141607:141533]
[1] "a" "t" "c" "t" "t" "g" "t" "t" "g" "c" "t" "a" "t" "t" "g" "t" "t" "t"
 [19] \ "a" \ "t" \ "c" \ "a" \ "t" \ "c" \ "a" \ "c" \ "g" \ "t" \ "c" \ "c" \ "t" \ "c" \ "a" \ "g" \ "t" \ "g
[37] "t" "t" "g" "a" "t" "a" "c" "t" "c" "a" "t" "t" "a" "t" "a" "c" "a"
 [55] \ "c" \ "a" \ "c" \ "a" \ "c" \ "t" \ "t" \ "g" \ "a" \ "g" \ "a" \ "c" \ "t" \ "c" \ "g" \ "t" \ "a" 
[73] "g" "t" "t"
> H42<-AL132709seq[141607:141533]
> length(H42)
[1] 75
> AL132709seq[123132:123058]
[1] "a" "c" "c" "t" "g" "g" "t" "t" "a" "c" "t" "a" "c" "t" "a" "c" "t" "t" "a" [19] "c" "c" "t" "t" "a" "c" "g" "t" "a" "g" "a" "c" "t" "t" "a" "t" "t" "t" [37] "t" "t" "a" "a" "t" "a" "c" "t" "a" "g" "t" "t" "a" "g" "t" "c" "a" "a"
[55] "a" "a" "a" "c" "c" "t" "t" "g" "t" "t" "g" "a" "c" "t" "c" "c" "a" "g"
[73] "g" "t" "g"
> H43<-AL132709seq[123132:123058]
> length(H43)
[1] 75
> AL132709seq[127342:127269]
[1] "a" "c" "c" "g" "g" "g" "t" "c" "t" "c" "t" "a" "c" "t" "a" "c" "t" "g"
[19] "a" "g" "c" "a" "c" "c" "c" "a" "t" "a" "c" "t" "c" "a" "g" "t" "t" "c"
[37] "c" "t" "a" "c" "t" "a" "c" "t" "c" "a" "t" "t" "a" "t" "c" "c" "t" "c"
[55] "a" "g" "t" "c" "c" "t" "t" "c" "a" "a" "a" "t" "t" "c" "g" "a" "g" "g"
[73] "c" "t"
> H44<-AL132709seq[127342:127269]
> length(H44)
[1] 74
```

> AL132709seq[196778:196707]

[1] "t" "t" "c" "a" "c" "t" "c" "a" "c" "t" "c"

```
[19] "a" "a" "g" "a" "c" "a" "c" "c" "g" "t" "a" "t" "a" "c" "t" "t" "a" "g"
[37] "t" "a" "a" "t" "t" "a" "a" "a" "c" "t" "a" "a" "t" "t" "t" "g" "g" [55] "g" "a" "t" "t" "t" "g" "a" "g" "a" "c" "t" "t" "c" "a" "g" "g" "t" "a"
> H45<-AL132709seq[196778:196707]
> length(H45)
[1] 72
```

## > AL132709seq[150469:150399]

[1] "c" "a" "c" "t" "t" "t" "t" "a" "a" "c" "t" "c" "t" "g" "g" "t" "t" "a" [19] "c" "t" "a" "c" "c" "g" "c" "a" "c" "t" "c" "g" "g" "t" "a" "t" "a" "t" [37] "g" "t" "t" "a" "c" "t" "c" "a" "t" "t" "t" "t" "g" "t" "a" "c" "a" "g" [55] "a" "c" "c" "t" "g" "a" "a" "a" "c" "t" "a" "c" "a" "g" "g" "t" "t"

- > H46<-AL132709seq[150469:150399]
- > length(H46)

[1] 71

## > AL132709seq[194257:194186]

[1] "t" "a" "t" "c" "g" "g" "t" "t" "a" "g" "t" "a" "a" "t" "c" "a" "t" "a" [19] "a" "g" "a" "c" "t" "c" "g" "a" "c" "a" "t" "c" "c" "t" "t" "a" "g" "t" [37] "t" "t" "c" "t" "a" "a" "a" "a" "c" "t" "a" "a" "t" "c" "t" "a" "a" "g" [55] "a" "c" "a" "t" "t" "g" "a" "g" "t" "c" "t" "c" "c" "a" "a" "a" "t" "a" > H47<-AL132709seq[194257:194186] > length(H47)

[1] 72