Loesung zu H31a:

n_1 = 5
n_2 = 10
n_3 = 3
n_4 = 12
n_5 = 5
n_6 = 50
n_7 = 6

m_[1][2]=min{m[1][1]+m[2][2]+n_{0}n_{1}n_{2}=min{0+0+5*10*3}=
=min{150}=150
s[1][2]=1

m_[2][3]=min{m[2][2]+m[3][3]+n_{1}n_{2}n_{3}=min{0+0+10*3*12}=
=min{360}=360
s[2][3]=2

m_[3][4]=min{m[3][3]+m[4][4]+n_{2}n_{3}n_{4}=min{0+0+3*12*5}=
=min{180}=180
s[3][4]=3

m_[4][5]=min{m[4][4]+m[5][5]+n_{3}n_{4}n_{5}=min{0+0+12*5*50}=
=min{3000}=3000
s[4][5]=4

m_[5][6]=min{m[5][5]+m[6][6]+n_{4}n_{5}n_{6}=min{0+0+5*50*6}=
=min{1500}=1500
s[5][6]=5

m_[1][3]=min{m[1][1]+m[2][3]+n_{0}n_{1}n_{3},m[1][2]+m[3][3]+n_{0}n_{2}n_{3}=
min{0+360+5*10*12,150+0+5*3*12}=min{960,330}=330
s[1][3]=2

m_[2][4]=min{m[2][2]+m[3][4]+n_{1}n_{2}n_{4},m[2][3]+m[4][4]+n_{1}n_{3}n_{4}=
min{0+180+10*3*5,360+0+10*12*5}=min{330,960}=330
s[2][4]=2

m_[3][5]=min{m[3][3]+m[4][5]+n_{2}n_{3}n_{5},m[3][4]+m[5][5]+n_{2}n_{4}n_{5}=min{0+3000+3*12*50,180+0+3*5*50}=
=min{4800,930}=930
s[3][5]=4

m_[4][6]=min{m[4][4]+m[5][6]+n_{3}n_{4}n_{6},m[4][5]+m[6][6]+n_{3}n_{5}n_{6}=min{0+1500+12*5*6,3000+0+12*50*6}
=min{1860,6600}=1860
s[4][6]=4

m_[1][4]=min{m[1][1]+m[2][4]+n_{0}n_{1}n_{4},m[1][2]+m[3][4]+n_{0}n_{2}n_{4},m[1][3]+m[4][4]+n_{0}n_{3}n_{4}=
=min{0+330+5*10*5,150+180+5*3*5,330+0+5*12*5}=
=min{580,405,630}=405
s[1][4]=2

m_[2][5]=min{m[2][2]+m[3][5]+n_{1}n_{2}n_{5},m[2][3]+m[4][5]+n_{1}n_{3}n_{5},m[2][4]+m[5][5]+n_{1}n_{4}n_{5}=
=min{0+930+10*3*50,360+3000+10*12*50,330+0+10*5*50}=min{2430,9360,2830}=2430
s[2][5]=2

m_[3][6]=min{m[3][3]+m[4][6]+n_{2}n_{3}n_{6},m[3][4]+m[5][6]+n_{2}n_{4}n_{6},
m[3][5]+m[6][6]+n_{2}n_{5}n_{6}=
min{0+1860+3*12*6,180+1500+3*5*6,930+0+3*50*6}=min{2076,1770,1830}=1770
s[3][6]=4

m_[1][5]=min{m[1][1]+m[2][5]+n_{0}n_{1}n_{5},m[1][2]+m[3][5]+n_{0}n_{2}n_{5},m[1][3]+m[4][5]+n_{0}n_{3}n_{5},
m[1][4]+m[5][5]+n_{0}n_{4}n_{5}=
=min{0+2430+5*10*50,150+930+5*3*50,330+3000+5*12*50,405+0+5*5*50}=min{4930,1830,6330,1655}=1655
s[1][5]=4

m_[2][6]=min{m[2][2]+m[3][6]+n_{1}n_{2}n_{6},m[2][3]+m[4][6]+n_{1}n_{3}n_{6},m[2][4]+m[5][6]+n_{1}n_{4}n_{6},
m[2][5]+m[6][6]+n_{1}n_{5}n_{6}=min{0+1770+10*3*6,360+1860+10*12*6,330+1500+10*5*6,2430+0+10*50*6}=
=min{1950,2940,2130,5430}=1950
s[2][6]=2

m_[1][6]=min{m[1][1]+m[2][6]+n_{0}n_{1}n_{6},m[1][2]+m[3][6]+n_{0}n_{2}n_{6},m[1][3]+m[4][6]+n_{0}n_{3}n_{6},m
[1][4]+m[5][6]+n_{0}n_{4}n_{6},m[1][5]+m[6][6]+n_{0}n_{5}n_{6}=
=min{0+1950+5*10*6,150+1770+5*3*6,330+1860+5*12*6,405+1500+5*5*6,1655+0+5*50*6}=
=min{2250,2010,2550,2055,3155}=2010
s[1][6]=2

Die optimale Klammerung ist also ((A_1A_2)((A_3A_4)(A_5A_6))).

Loesung zu H-31b:

```
        C  G  C  G  T  A  C  T
    +0 +0 +0 +0 +0 +0 +0 +0 +0
 G  +0 ^0 \1 <1 \1 <1 <1 <1 <1
 T  +0 ^0 ^1 ^1 ^1 \2 <2 <2 \2
 A  +0 ^0 ^1 ^1 ^1 ^2 \3 <3 <3
 C  +0 \1 ^1 \2 <2 ^2 ^3 \4 <4
 C  +0 \1 ^1 \2 ^2 ^2 ^3 \4 ^4
 A  +0 ^1 ^1 ^2 ^2 ^2 \3 ^4 ^4
 T  +0 ^1 ^1 ^2 ^2 \3 ^3 ^4 \5
 G  +0 ^1 \2 ^2 \3 ^3 ^3 ^4 ^5
 T  +0 ^1 ^2 ^2 ^3 \4 <4 ^4 \5
```

GTACT (length 5)