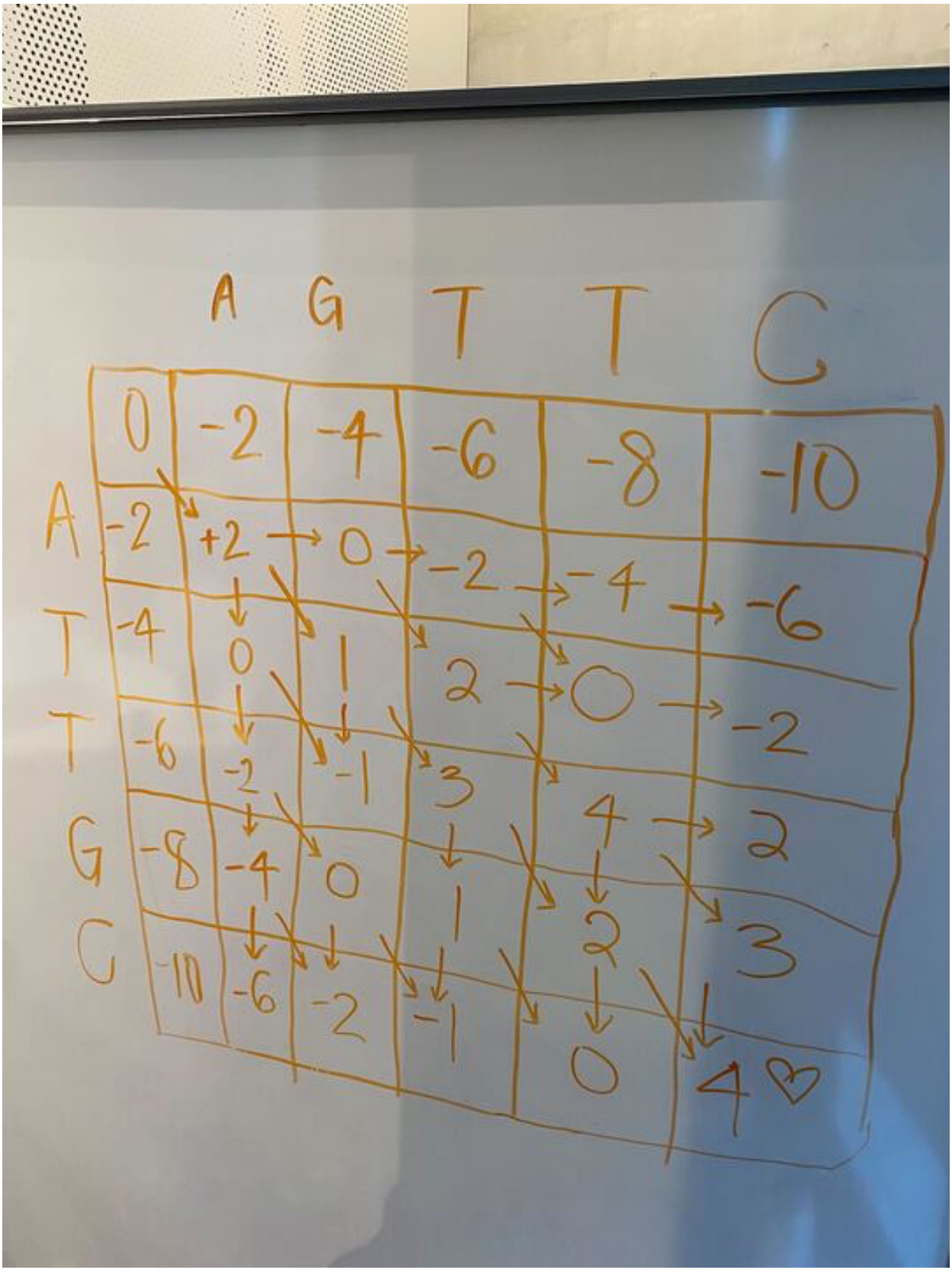
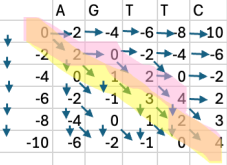

A G T T C
0 -2 -4 -6 -8 -10
A -2 +2 0 -2 -4 -6
T -4 0 1 2 0 -2
T -6 -2 -1 3 4 2
G -8 -4 0 1 2 3
C -10 -6 -2 -1 0 4

	_	A	G	T	T	C
_	0	-2	-4	-6	-8	-10
A	-2	2	0	-2	-4	-6
T	-4	0	1	2	0	-2
T	-6	-2	-1	3	4	2
G	-8	-4	0	1	2	3
C	-10	-6	-2	-1	0	4



jagged path					*use gap and G bc it's vertical movement	
hor seq	A	G	T	T	_	C
vert seq	A	_	T	T	G	C
		*use G and gap bc it's horizontal movement				
all-diagonal path						
hor seq	A	G	T	T	C	
vert seq	A	T	T	G	C	

match score of +2, a mismatch score of -1, and a gap score of -2.

for each square, you have 3 options; try all of them and see which gives the

*for horizontal and vertical, always use a gap score; for diagonal, use a ma

*do the top and left-most rows using horizontal and vertical at first

choose your best path (there are 2 here)

along the best path, fill the hor/vert spots with gaps, fill the diagonal with matches or mismatch

top row of photo is the result for the hor sequence, bottom row is the vert sequence

& the top-written sequence in black is for the jagged path, bottom-written sequence is for the all-diagonal path

C3		C5	D7
diagonal	**=0+(2) = 2**	diagc	= -4+-1 =
horizontal right	=-2 + (-2) = -4	horiz	= -6 + -2 =
vertical down	=-2 + (-2) = -4	**verti**	**= 0 + -2 =**

C4		C6	E4
diagonal	=-2 + (-1) = -3	diagc	=-6 + -1 =
horizontal right	=-4 + (-2) = -6	horiz	= -8 + -2 =
vertical down	**=-2 + (-2) = 0**	**verti**	**= -2 + -2 =**

D3		C7	E5
diagonal	=-2 + (-1) = -3	diagc	=-8 + -1 =
horizontal right	**=2 + (-2) = 0**	horiz	= -10 + -2
vertical down	= -4 + (-2) = -6	**verti**	**= -4 + -2 =**

example:		D4	E6
diagonal	**=2 + (-1) = 1**	**diagc**	**= 0 + -1 =**
horizontal right	=0 + (-2) = -2	horiz	= -2 + -2 =
vertical down	0 + (-2) = -2	**verti**	**1+ -2 = -1**

E3		D6	E7
diagonal	-4 +-1 = -5	**diagc**	**-2 + 2 = 0**
horizontal right	**0 + (-2) = -2**	horiz	-4 +-2 = -6
vertical down	-6 + (-2) = -8	vertic	-1 + -2 = -3

F3			G3
diagonal	= -6 + -1 = -7	diagona	= -8 + -1 = =-9
horizontal right	**= -2 + -2 = -4**	**horizon**	**= -4 + -2 = -6**
vertical down	= -8 + -2 = -10	vertical	= -10 + -2 = -12

F4			G4
diagonal	-2 + 1 = -1	diagona	= -4 + -1 = -5
horizontal right	**=2 + -2 = 0**	**horizon**	**= 0 + -2 = -2**
vertical down	= -4 + -2 = -6	vertical	= -6 + -2 = -8

F5			G5
diagonal	**= 2 + 2 = 4**	diagona	0 + -1 = -1
horizontal right	= 3 + -2 = 1	**horizon**	**4 + -2 = 2**
vertical down	= 0 + -2 = -2	vertical	-2 + -2 = -4

F6			G6
diagonal	**= 3 + -1 = 2**	**diagona**	**4 + -1 = 3**
horizontal right	= 1 + -2 = -1	horizon	= 2 + -2 = 0
vertical down	**= 4 + -2 = 2**	vertical	= 2 + -2 = 0

F7			G7
diagonal	**= 1 + -1 = 0**	**diagona**	**= 2 + 2 = 4**
horizontal right	= -1 + -2 = -3	horizon	= 0 + -2 = -2
vertical down	**= 2 + -2 = 0**	vertical	= 3 + -2 = 1

_	G	T	T	A	C
0	-2	-4	-6	-8	-10
-2	-1	0	-2	-4	-6
-4	-3	-2	-1	0	-2
-6	-5	-1	0	-2	-1
-8	-7	-3	-2	2	0
-10	-6	-5	-4	0	1

match score of +2, a mismatch score of -1, and a gap score of -2.

diagonal

horizontal right

vertical down

Calculations:

C3		D3		E3		F3		G3	
diagonal	**=0+(-1)=-1**	**diagonal**	**=-2+2=0**	**diagonal**	**=-4+2=-2**	diagonal	=-6+(-1)=-7	diagonal	=-8+(-1)=-9
horizontal right	=-2+(-2)=-4	horizontal right	=-1+(-2)=-3	**horizontal right**	**=0+(-2)=-2**	**horizontal right**	**=-2+(-2)=-4**	**horizontal right**	**=-4+(-2)=-6**
vertical down	=-2+(-2)=-4	vertical down	=-4+(-2)=-6	vertical down	=-6+(-2)=-8	vertical down	=-8+(-2_=-10	vertical down	=-10+(-2)=-12

C4		D4		E4		F4		G4	
diagonal	**=-2+(-1)=-3**	**diagonal**	**=-1+(-1)=-2**	**diagonal**	**=0+(-1)=-1**	**diagonal**	**=-2+2=0**	diagonal	=-4+(-1)=-5
horizontal right	=-4+(-2)=-6	horizontal right	=(-3)+(-2)=-5	horizontal right	=-2+(-2)=-4	horizontal right	=-1+(-2)=-3	**horizontal right**	**=0+(-2)=-2**
vertical down	**=-1+(-2)=-3**	**vertical down**	**=0+(-2)=-2**	vertical down	=-2+(-2)=-4	vertical down	=-4+(-2)=-6	vertical down	=-6+(-2)=-8

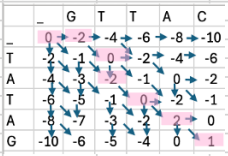
C5		D5		E5		F5		G5	
diagonal	**=-4+(-1)=-5**	**diagonal**	**=-3+(2)=-1**	**diagonal**	**=-2+2=0**	**diagonal**	**=-1+(-1)=-2**	**diagonal**	**=0+(-1)=-1**
horizontal right	=-6+(-2)=-8	horizontal right	=-5+(-2)=-7	horizontal right	=-1+(-2)=-3	**horizontal right**	**=0+(-2)=-2**	horizontal right	=-2+(-2)=-4
vertical down	**=-3+(-2)=-5**	vertical down	=-2+(-2)=-4	vertical down	=-1+(-2)=-3	**vertical down**	**=0+(-2)=-2**	vertical down	=-2+(-2)=-4

C6		D6		E6		F6		G6	
diagonal	**=-6+(-1)=-7**	diagonal	=-5+(-1)=-6	**diagonal**	**=-1+(-1)=-2**	**diagonal**	**=0+2=2**	diagonal	=-2+(-1)=-3
horizontal right	=-8+(-2)=-10	horizontal right	=-7+(-2)=-9	horizontal right	=-3+(-2)=-5	horizontal right	=-2+(-2)=-4	**horizontal right**	**=2+(-2)=0**
vertical down	**=-5+(-2)=-7**	**vertical down**	**=-1+(-2)=-3**	**vertical down**	**=0+(-2)=-2**	vertical down	=-2+(-2)=-4	vertical down	=-1+(-2)=-3

C7		D7		E7		F7		G7	
diagonal	**=-8+2=-6**	diagonal	=-7+(-1)=-8	**diagonal**	**=-3+(-1)=-4**	diagonal	=-2+(-1)=-3	**diagonal**	**=2+(-1)=1**
horizontal right	=-10+(-2)=-12	horizontal right	=-6+(-2)=-8	horizontal right	=-5+(-2)=-7	horizontal right	=-4+(-2)=-6	horizontal right	=0+(-2)=-2
vertical down	=-7+(-2)=-9	**vertical down**	**=(-3)+(-2)=-5**	**vertical down**	**=-2+(-2)=-4**	**vertical down**	**=2+(-2)=0**	vertical down	=0+(-2)=-2

Best path

	_	G	T	T	A	C
_	0	-2	-4	-6	-8	-10
T	-2	-1	0	-2	-4	-6
A	-4	-3	-2	-1	0	-2
T	-6	-5	-1	0	-2	-1
A	-8	-7	-3	-2	2	0
G	-10	-6	-5	-4	0	1



alignment yellow

G	T	T	A	C
T	A	T	A	G

alignment pink

G	T	_	T	A	C
_	T	A	T	A	G