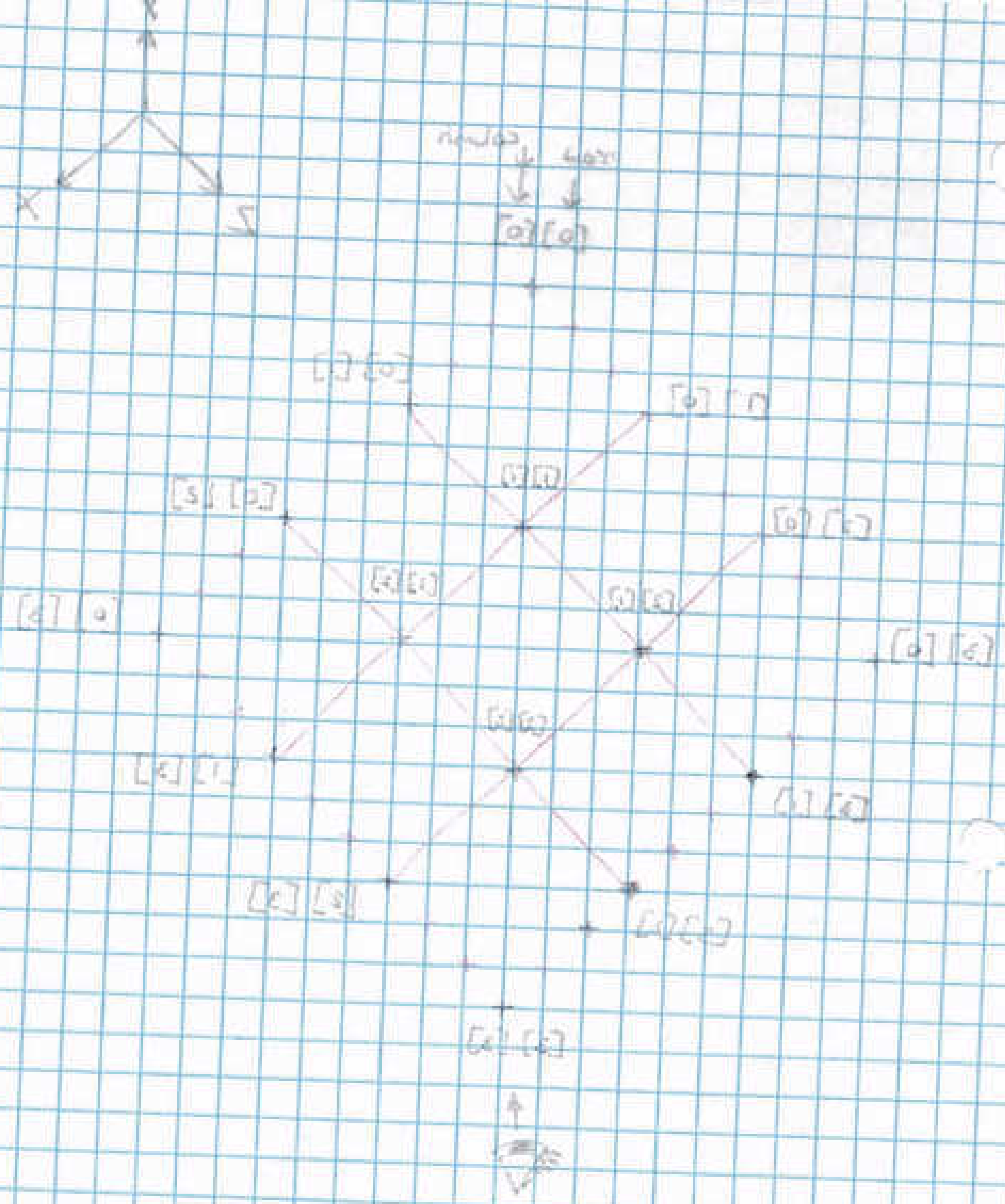
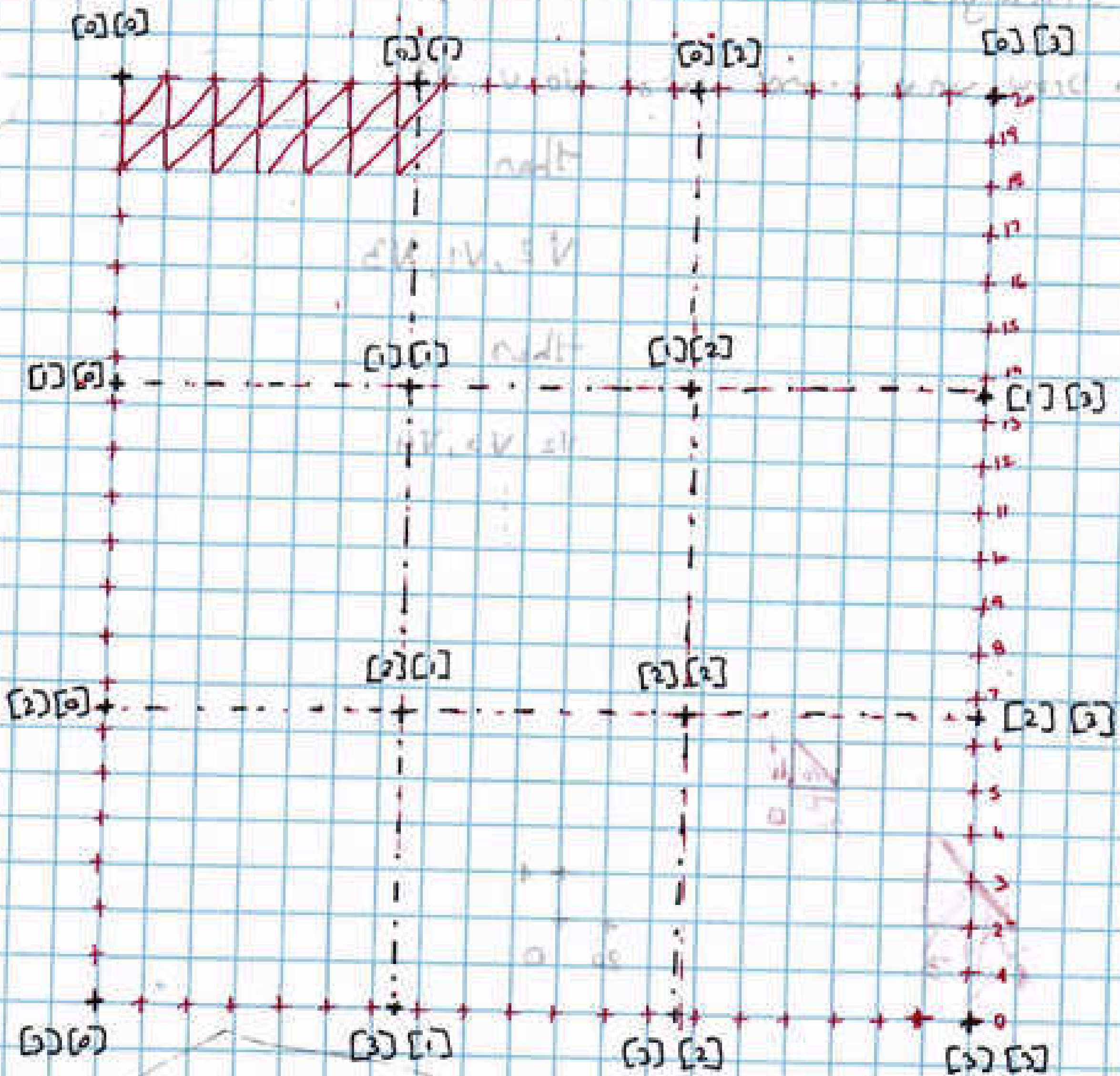
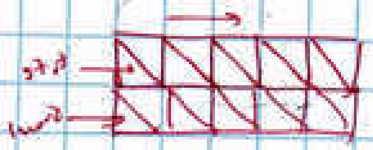
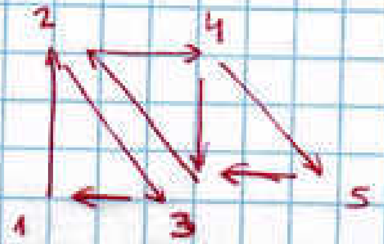
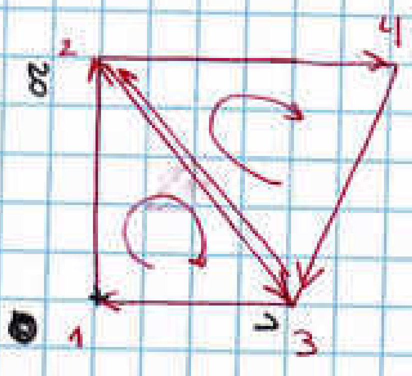

Y
X
Z
[0][0]





2n+1





To draw the next ~~second~~ triangle
only an extra vertex is needed

60 GL_Triangle_strip:

- Draw some triangles using V0, V1, V2

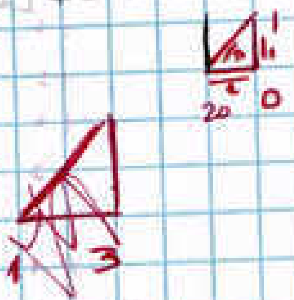
  then

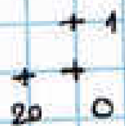
  V2, V1, V3

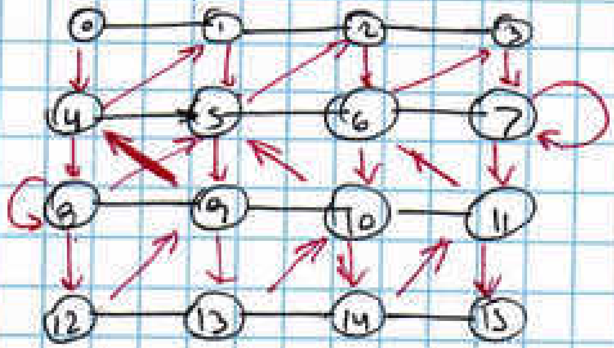
  then

  V2, V3, V4

  ⋮





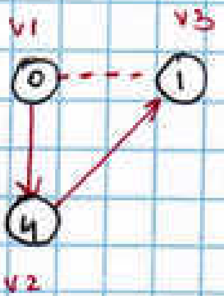


ix iy iz

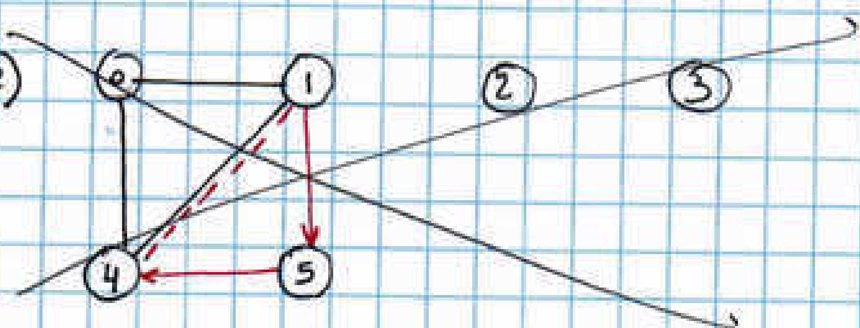
i+row.x, i+row.y, i.row.y

~~i+row~~
i+1.x, i+1.y ij.z

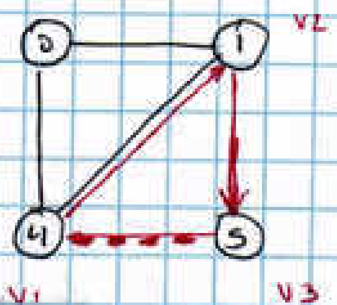
1)



2)



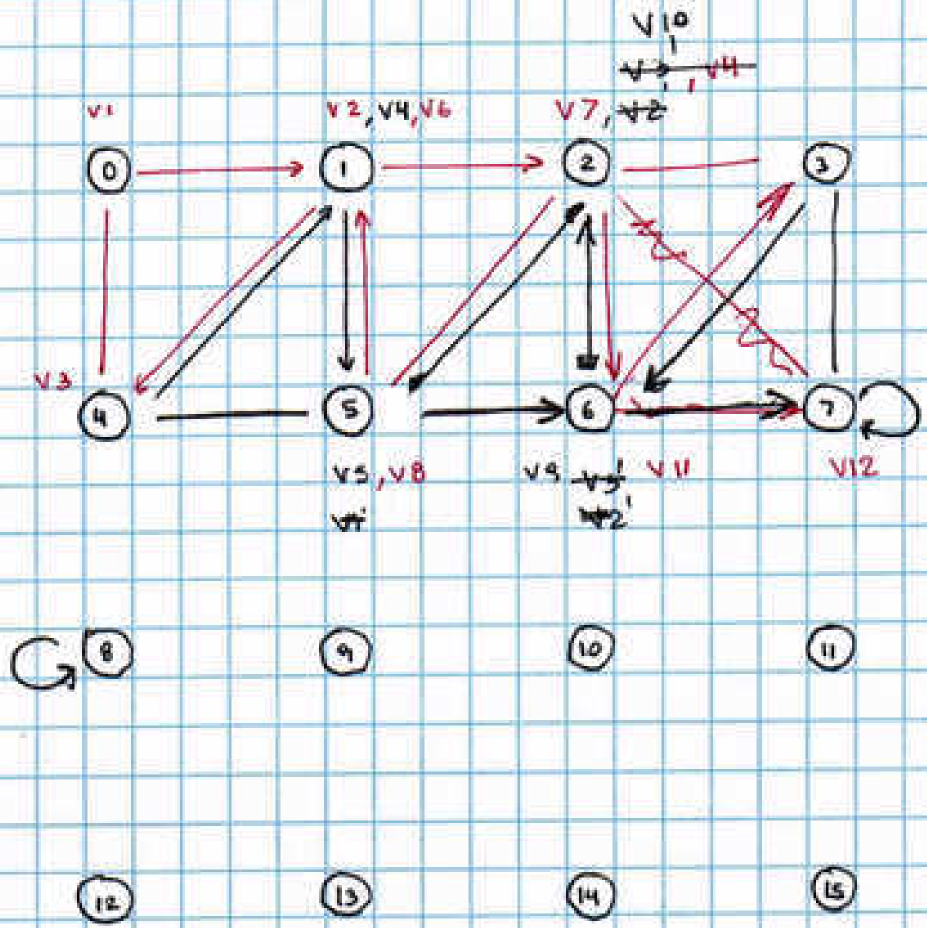
(2)



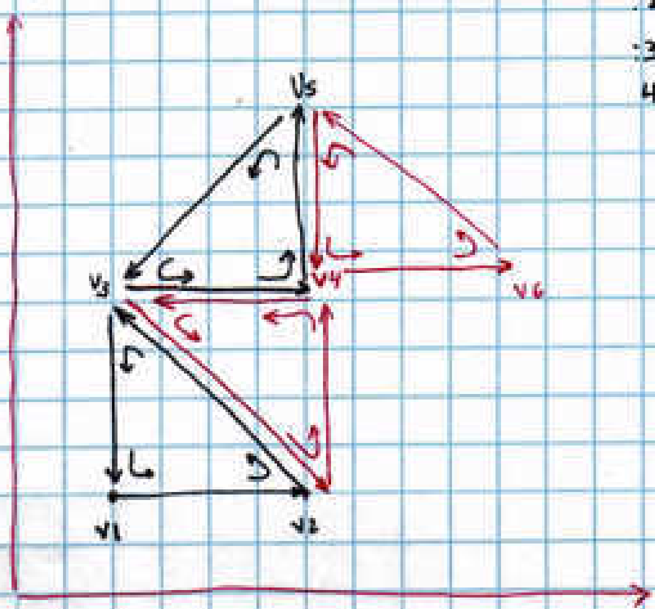
i+row

i+1

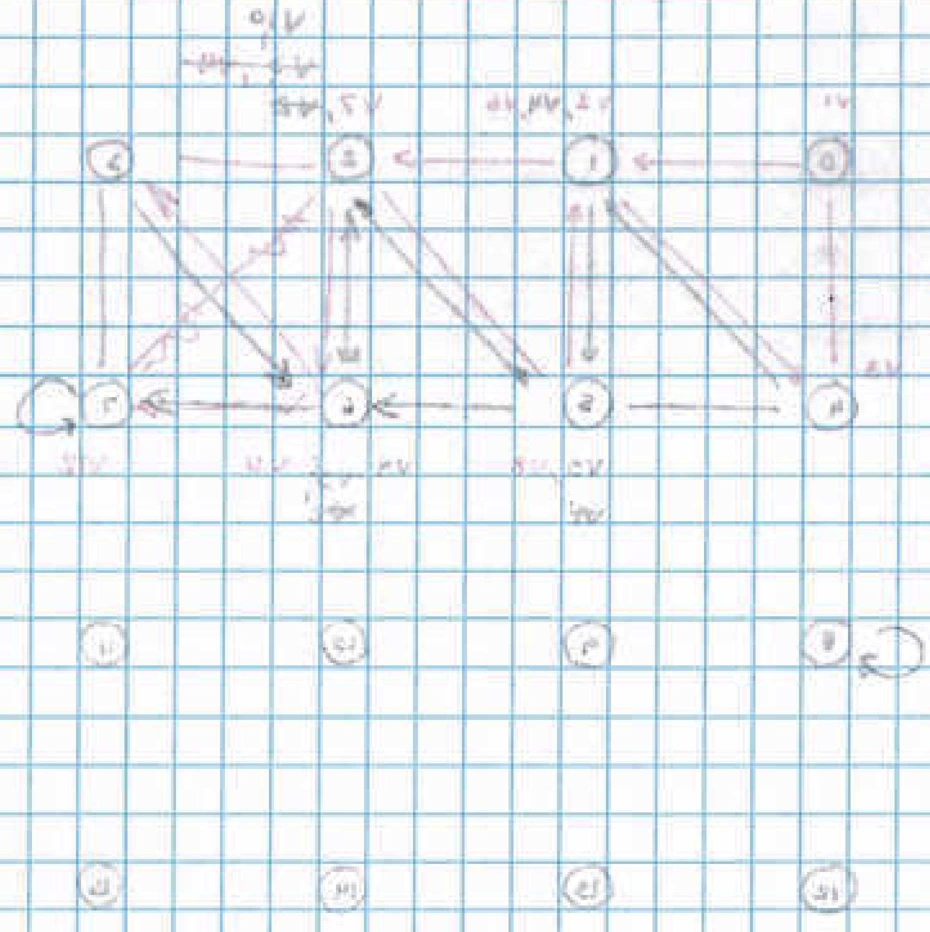
i+row+1

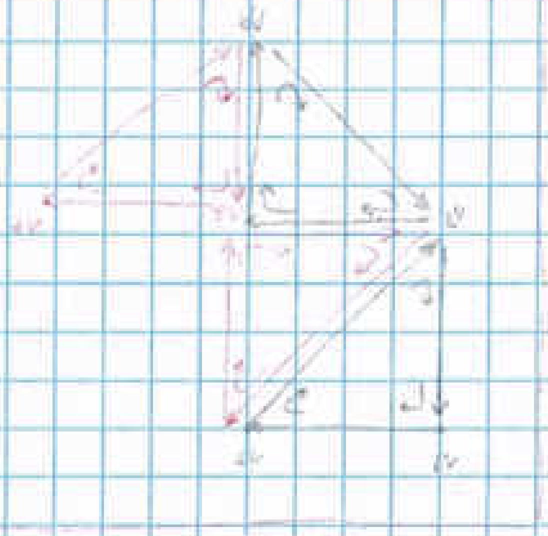


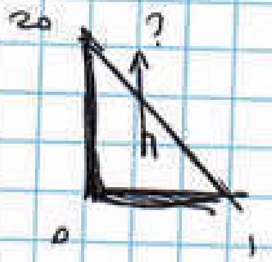
Vertex index: 1	V1 → V2 → V3	odd n = 1
: 2	V3 → V2 → V4	even n = 2
: 3	V3 → V4 → V5	odd n = 3
4	V5 → V4 → V6	even n = 4

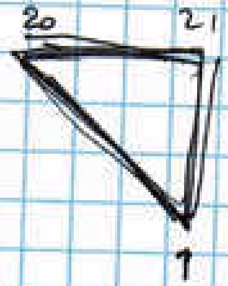


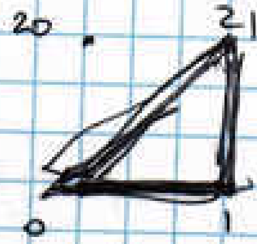

```
glBegin (GL_TRIANGLE_Strip
    V1
    V2
    V3
    V4
    V5
    V6
glEnd()
```

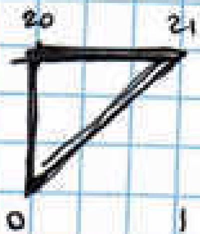












① chosen = bspline.get interval - 1

② if (i >= chosen)

chosen++ = b-spline.get interval

get_vector

modify vector only

on creation & when

said control point is

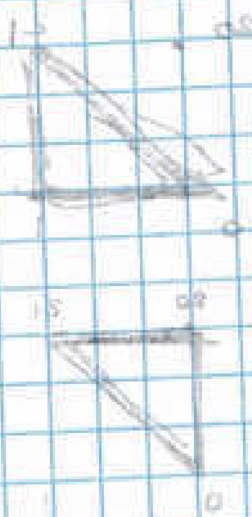
used

construction vector

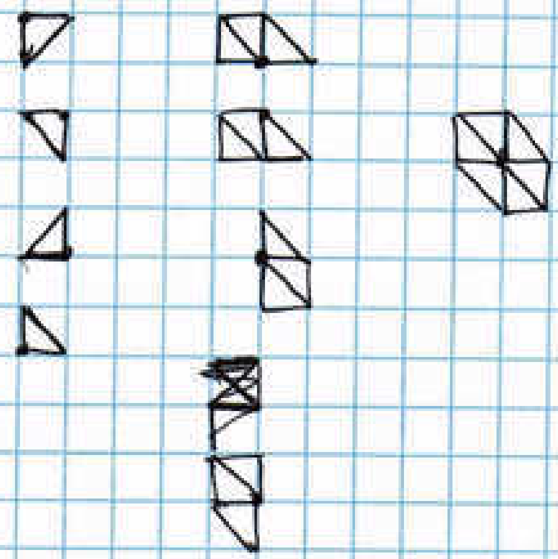
get → warn only of vector

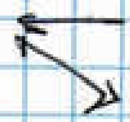
- if said control point is used
- if first time vector is empty

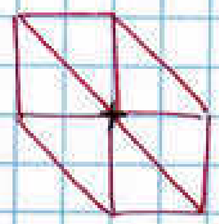
optimization

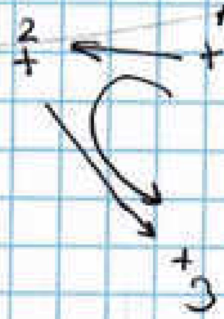


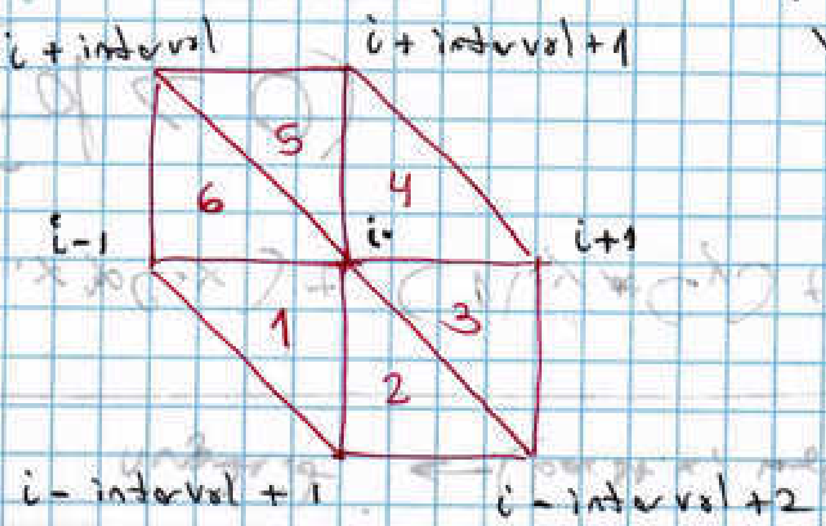
case A case B case C









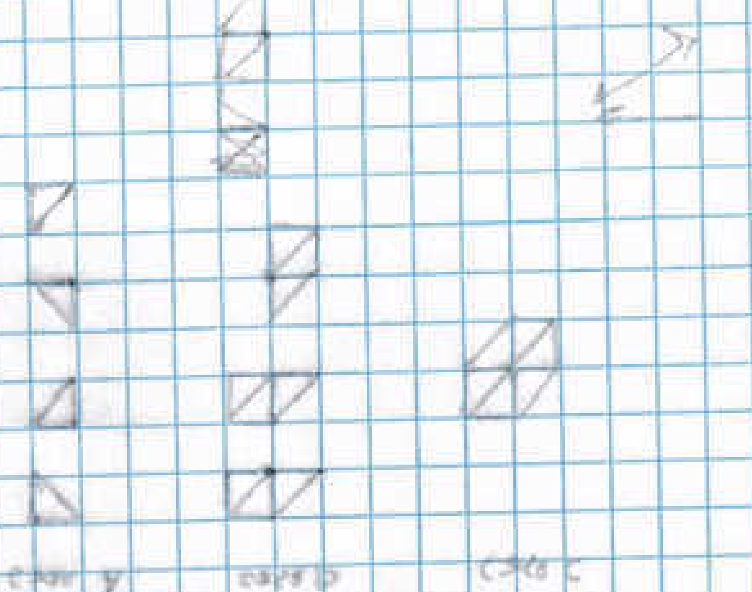


$0 \rightleftharpoons 0$

negate it ← (botLt.x, leng?.y, ~)

$$d = (N.x * C.x) + (N.y * C.y) + (N.z * C.z)$$

$(d < 0)$

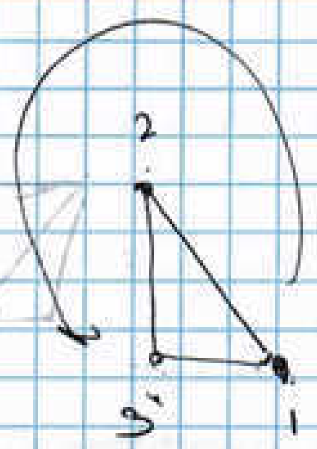


How do you now the direction of the normal for these triangle

which dot vertex you use first?

- topic after the test
- light source → generate the intensity
  - how different light element need to consider
    - diffuse
    - specular

B_spline



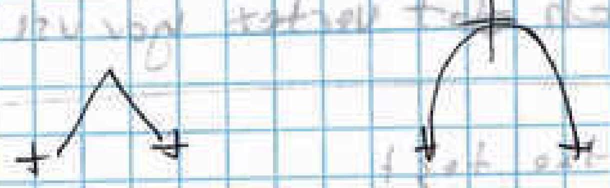
definition of dimension

linear interpretation

draw white

Approximation, a spline

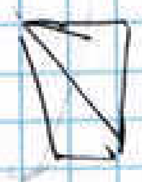
given points interpolation w/
different approaches



linear no linear

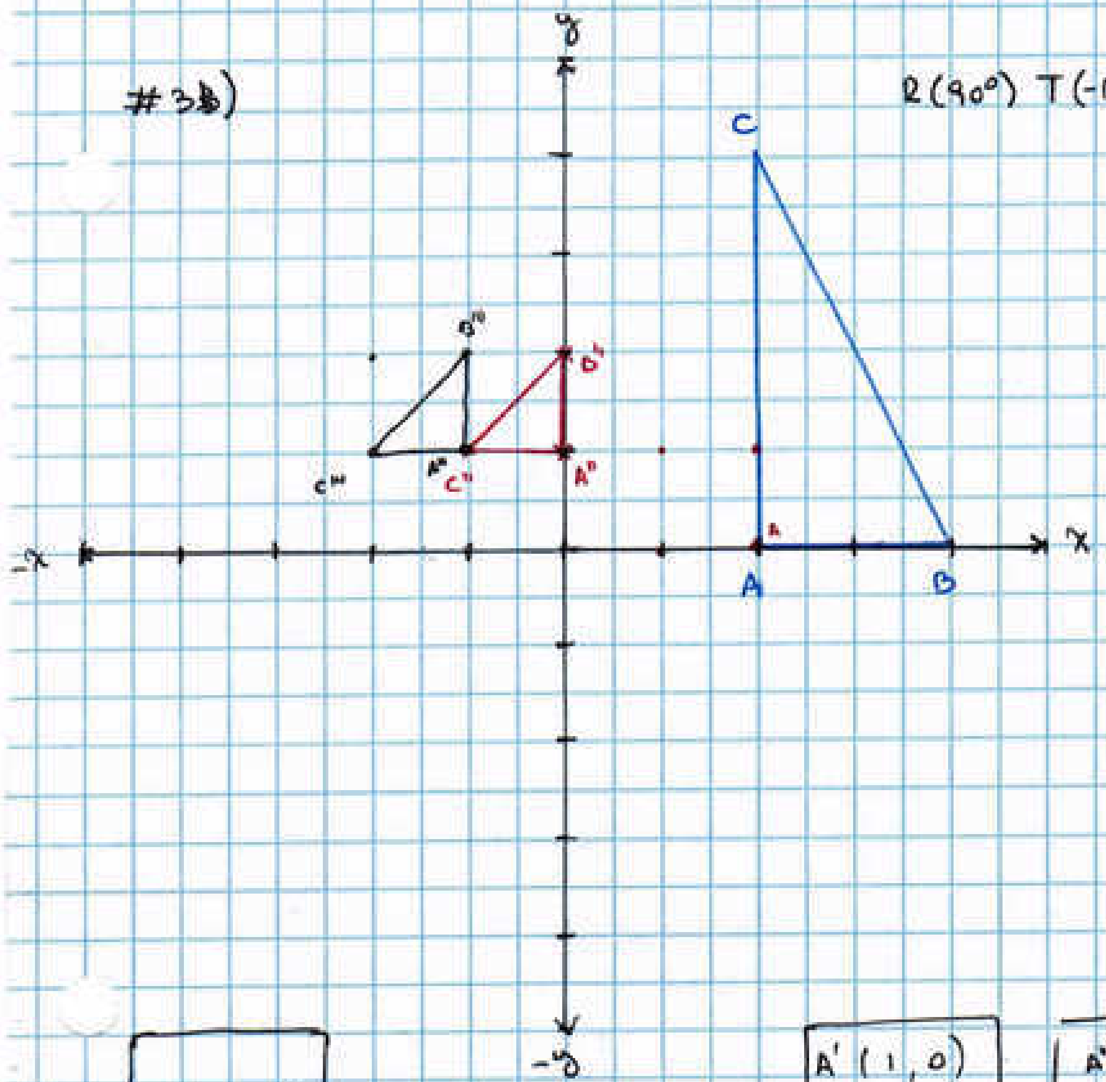
Now the connectivity of a point

1° 2° 3° order



#3B)

$R(90°)\ T(-1,0)\ S(1/2, 1/4)$



A (2,0)
B (4,0)
C (2,4)

A' (1, 0)
B' (2, 0)
C' (1, 1)

A'' (0, 1)
B'' (0, 2)
C'' (-1, 1)

A''' (-1, 1)
B''' (-1, 2)
C''' (-2, 1)

$S(1/2, 1/4)$

$A'x = Ax \cdot Sx = 2 \cdot 1/2 = 1$
$B'x = Bx \cdot Sx = 4 \cdot 1/2 = 2$
$C'x = Cx \cdot Sx = 2 \cdot 1/2 = 1$
$A'y = Ay \cdot Sy = 0 \cdot 1/4 = 0$
$B'y = By \cdot Sy = 0 \cdot 1/4 = 0$
$C'y = Cy \cdot Sy = 4 \cdot 1/4 = 1$

$R(90°)$

$A_x'' = x\cos\theta - y\sin\theta = 1 \cancel{\cos(90)} - 0 \cdot \sin(90°) = 0$
$Bx'' = x\cos\theta - y\sin\theta = 2 \cancel{\cos(90)} - 0 \sin(90°) = 0$
$Cx'' = x\cos\theta - y\sin\theta = 1 \cancel{\cos(90)} - 1 \sin(90°) = -1$
$Ay'' = x\sin\theta + y\cos\theta = 1 \sin(90) + 0 \cos(90) = 1$
$By'' = x\sin\theta + y\cos\theta = 2 \sin(90) + 0 \cos(90) = 2$
$Cy'' = x\sin\theta + y\cos\theta = 1 \sin(90) + \cancel{1 \cos(90)} = 1$

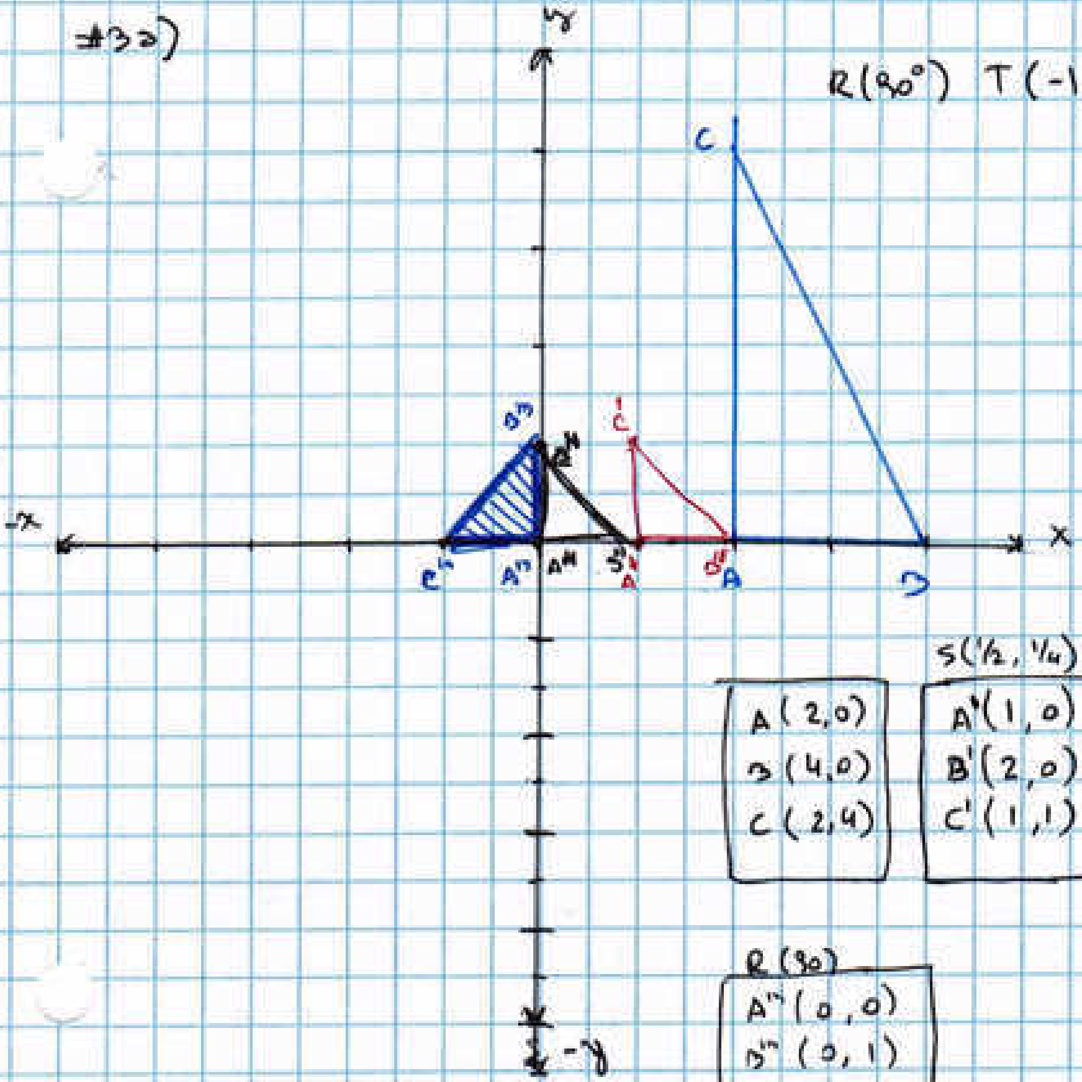
$T(-1,0)$

$A'''x = A''x + (-1) = 0 - 1 = -1$
$B'''x = B''x + (-1) = 0 - 1 = -1$
$C'''x = C''x + (-1) = -1 - 1 = -2$

$A'''y = A''y + 0 = 1 + 0 = 1$
$B'''y = B''y + 0 = 2 + 0 = 2$
$C'''y = C''y + 0 = 1 + 0 = 1$

#32)

$R(90^\circ)\ T(-1,0)\ S(1/2, 1/4)$



	$S(1/2, 1/4)$	$T(-1,0)$
A (2,0)	A' (1,0)	A'' (0,0)
B (4,0)	B' (2,0)	B'' (1,0)
C (2,4)	C' (1,1)	C'' (0,1)

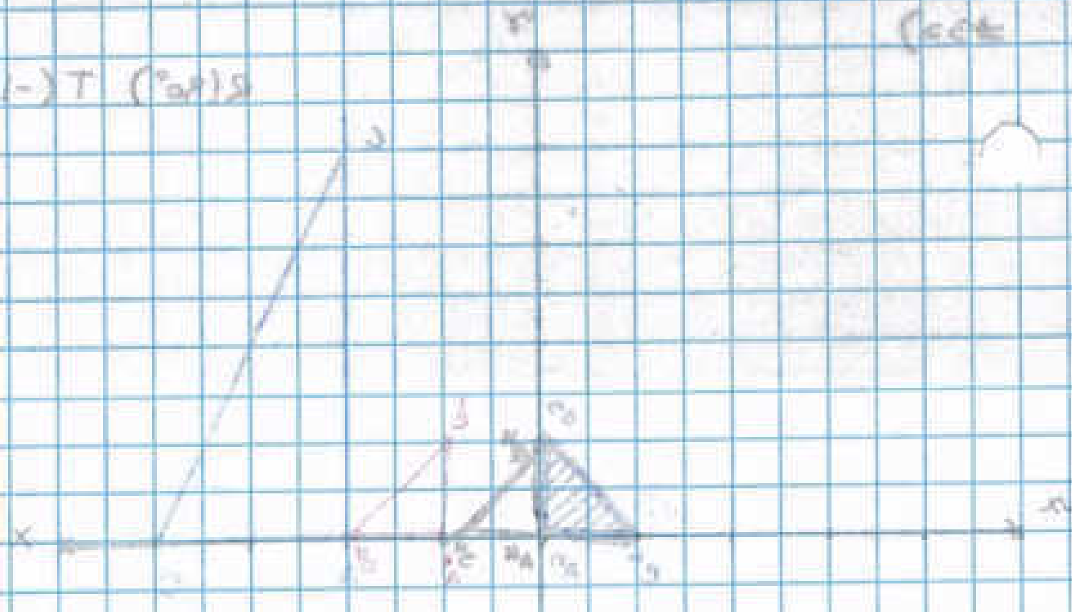
R (90)

A''' (0,0)
B''' (0,1)
C''' (-1,0)

$$A_x''' = A_x'' \cos(90) - A_y'' \cdot \sin(90) = \cancel{0 \cdot \cos 90} - \cancel{0 \sin 90^\circ} = 0$$
$$B_x''' = B_x'' \cos(90) - B_y'' \cdot \sin(90) = \cancel{1 \cos 90} - \cancel{0 \sin 90^\circ} = 0$$
$$C_x''' = C_x'' \cos(90) - C_y'' \cdot \sin(90^\circ) = \cancel{0 \cos 90} - 1 \sin 90^\circ = -1$$

$$A_y''' = A_x'' \sin(90) + A_y'' \cdot \cos(90^\circ) = \cancel{0 \sin 90} + \cancel{0 \cos 90} = 0$$
$$B_y''' = B_x'' \sin(90) + B_y'' \cos(90^\circ) = 1 \sin 90 + \cancel{0 \cos 90} = 1$$
$$C_y''' = C_x'' \sin(90) + C_y'' \cos(90^\circ) = \cancel{0 \sin 90} + \cancel{1 \cos 90} = 0$$

R(90°) T(-1,0) S(1/4,1/4)



T(-1,0)	S(1/4,1/4)	
A'(0,0)	A(1,0)	A(20,0)
B'(0,)	B(2,0)	B(40,)
C'(1,0)	C(1,1)	C(4,4)

R(90°)
A''(0,0)
B''(0,)
C''(0,1)

$A''_x = A'_x \cos(90) - A'_y \sin(90) = 0 \cos 90 - 0 \sin 90 = 0$

$B''_x = B'_x \cos(90) - B'_y \sin(90) = 0 \cos 90 - 0 \sin 90 = 0$

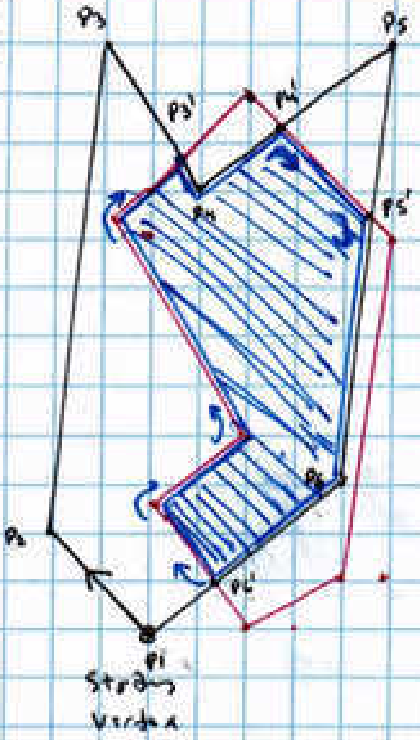
$C''_x = C'_x \cos(90) - C'_y \sin(90) = 0 \cos 90 - 1 \sin 90 = -1$

$A''_y = A'_x \sin(90) + A'_y \cos(90) = 0 \sin 90 + 0 \cos 90 = 0$

$B''_y = B'_x \sin(90) + B'_y \cos(90) = 0 \sin 90 + 0 \cos 90 =$

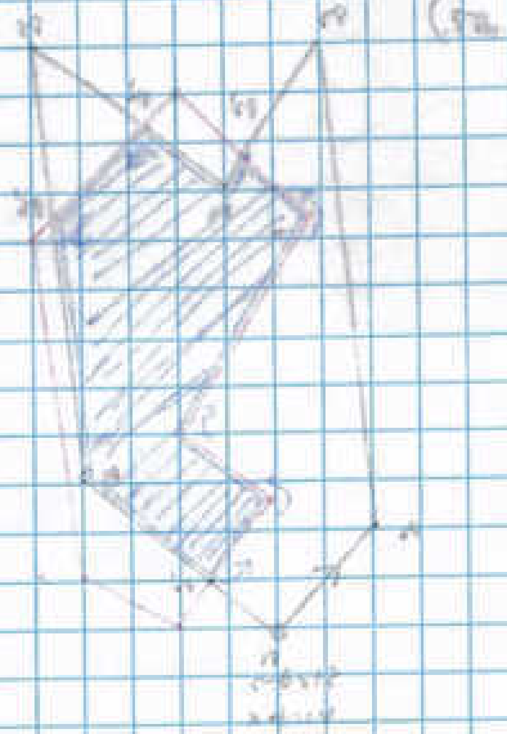
$C''_y = C'_x \sin(90) + C'_y \cos(90) = 0 \sin 90 + 1 \cos 90 = 0$

#17.)



#38)

[redacted]



[redacted]