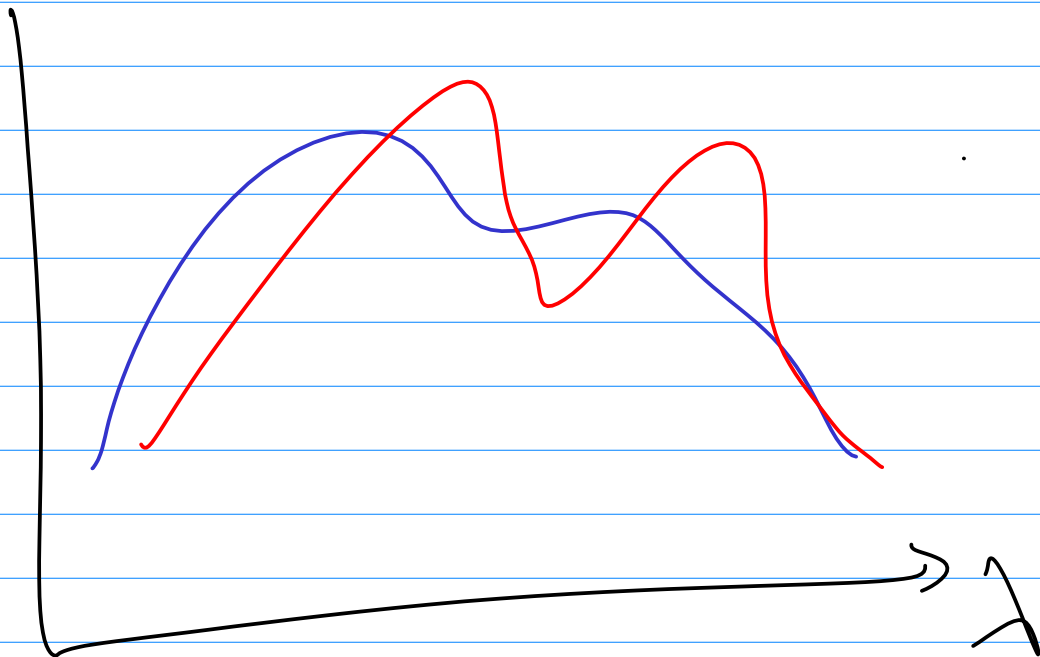$R(\lambda)$

$R(\lambda) =$ REFLECTIVITY OF MATERIAL

$B(\lambda) =$ BRIGHTNESS OF LIGHT

$C(\lambda) =$ REFLECTED LIGHT

$$= B(\lambda) R(\lambda)$$
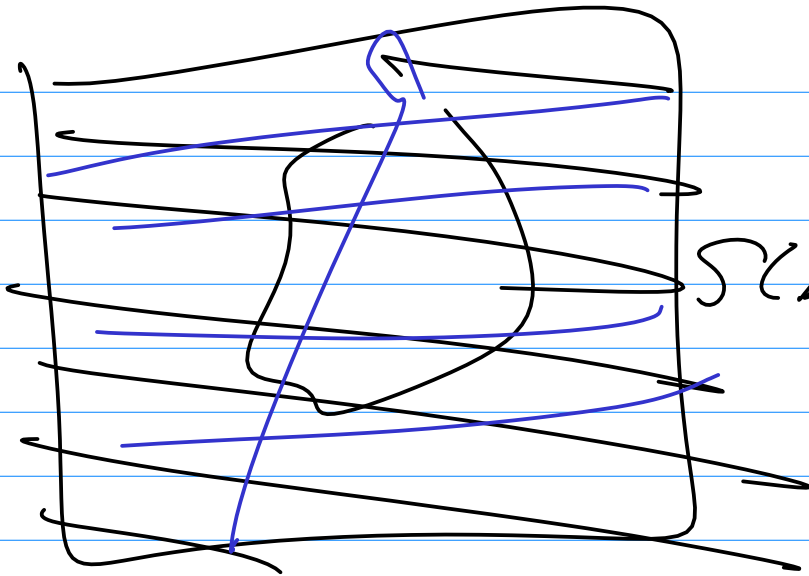
$E(\lambda) =$ SENSITIVITY OF RED CONES

PERCEIVED REDNESS

$$= \int E(\lambda) C(\lambda) \, d\lambda$$

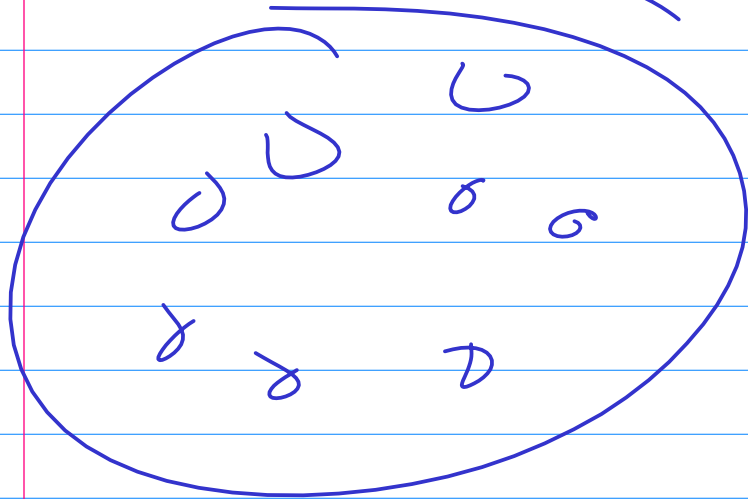$$= \int E(\lambda) B(\lambda) R(\lambda) \, d\lambda$$

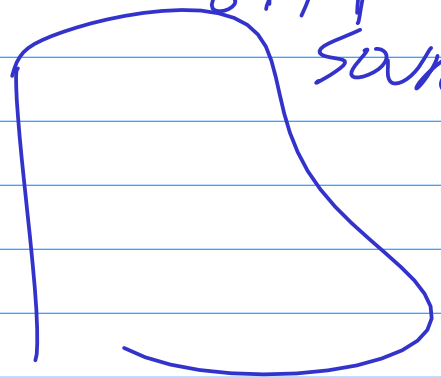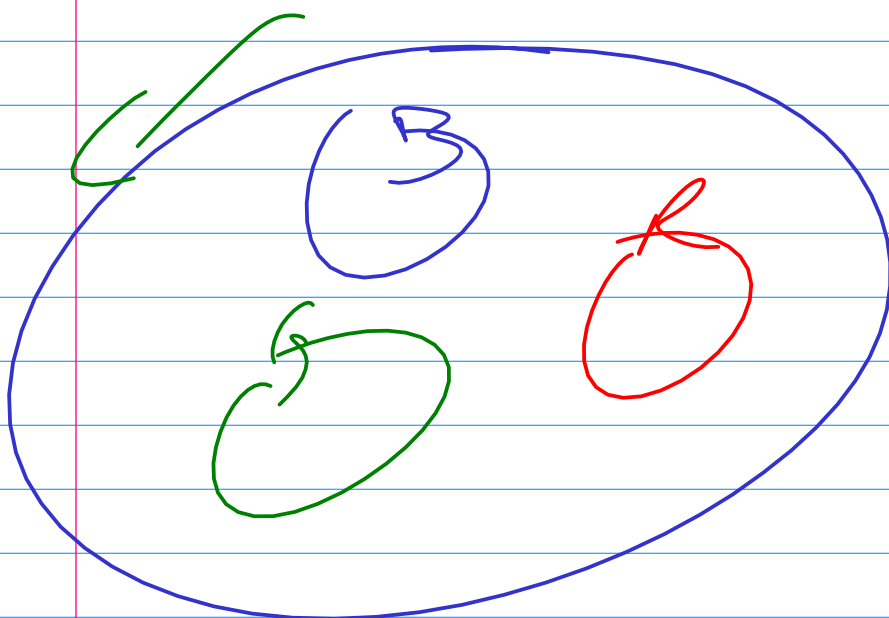YOU CAN HAVE CONSIDERABLY DIFFERENT FUNCTIONS GIVING SAME RESULTS
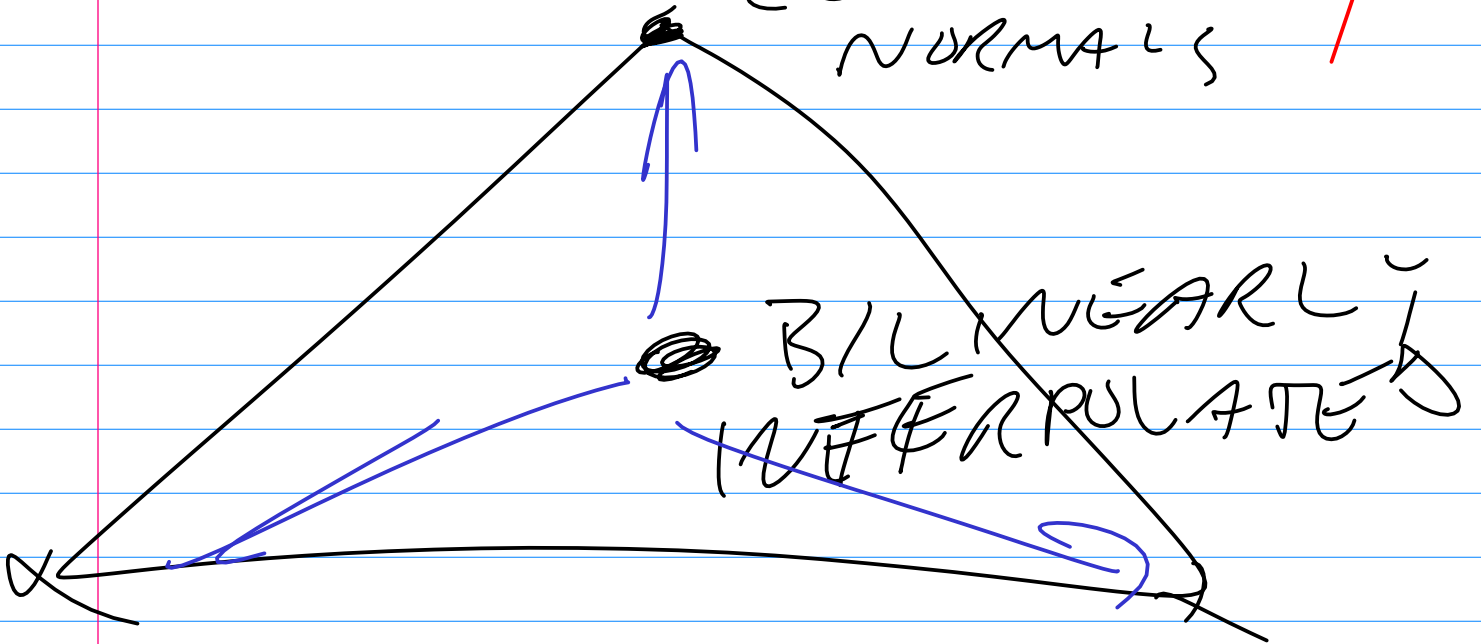
2

SCAN LINES

CRT

LIGHT SOURCE

B,W CRT

CONE SENSITIVITY

S

R

B

700   400

R   O   Y   G   C   B   M

PERCEIVED

INC LIGHT

COORDS
COLORS
NORMALS

4

BILINEARLY
INTERPOLATED
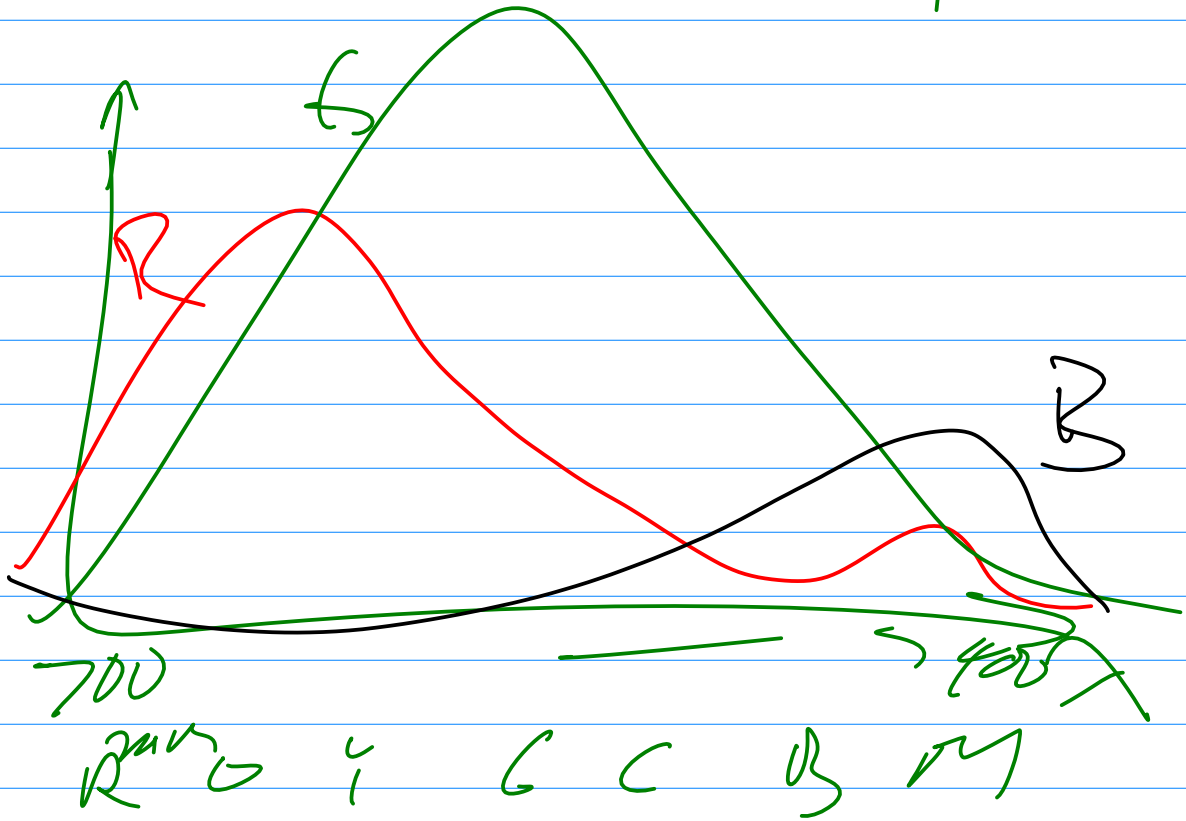
RASTERIZER

FOR 3D USE

DEPTH OR Z

BUFFER FRAME/COLOR
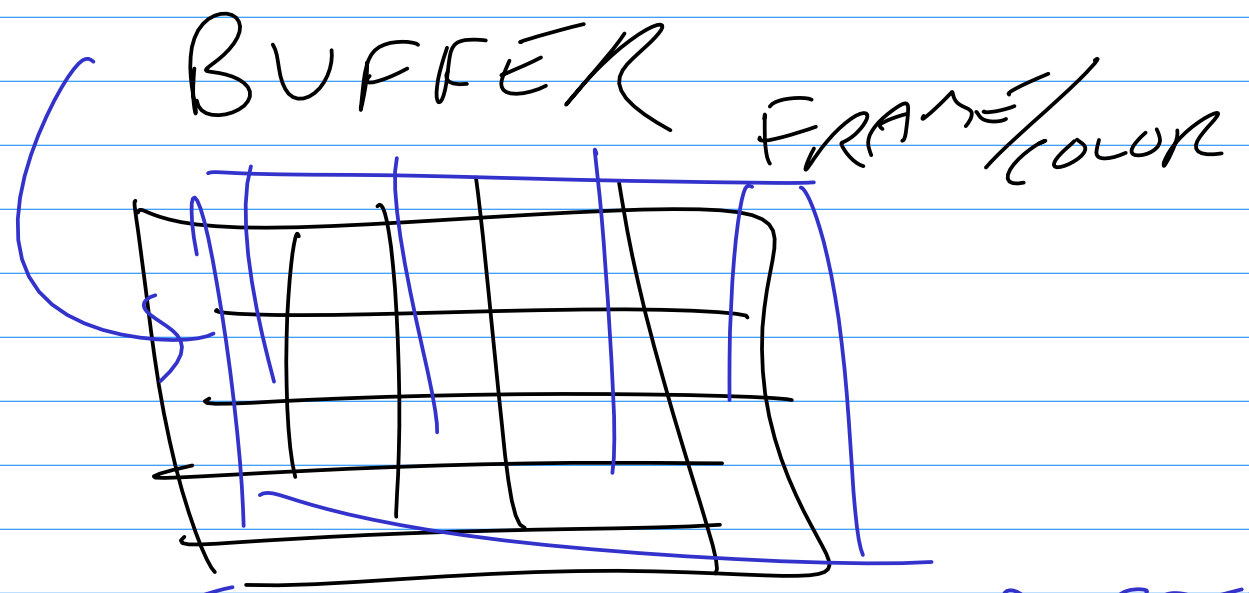
FOR EACH PIXEL, Z BUFFER
HAS DISTANCE TO
CLOSEST OBJECT @
THAT PIXEL

TO DRAW

$Z = 5$

$Z = 10$

$Z = 15$
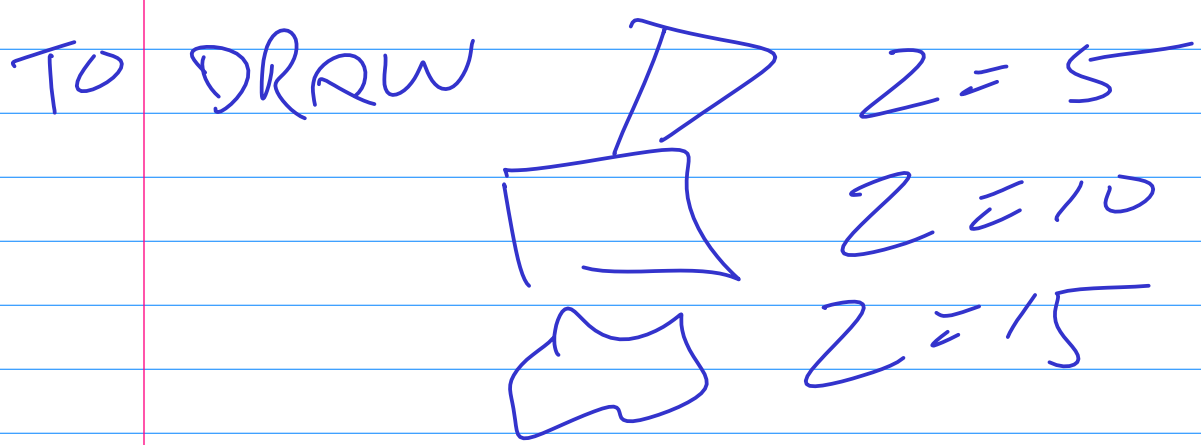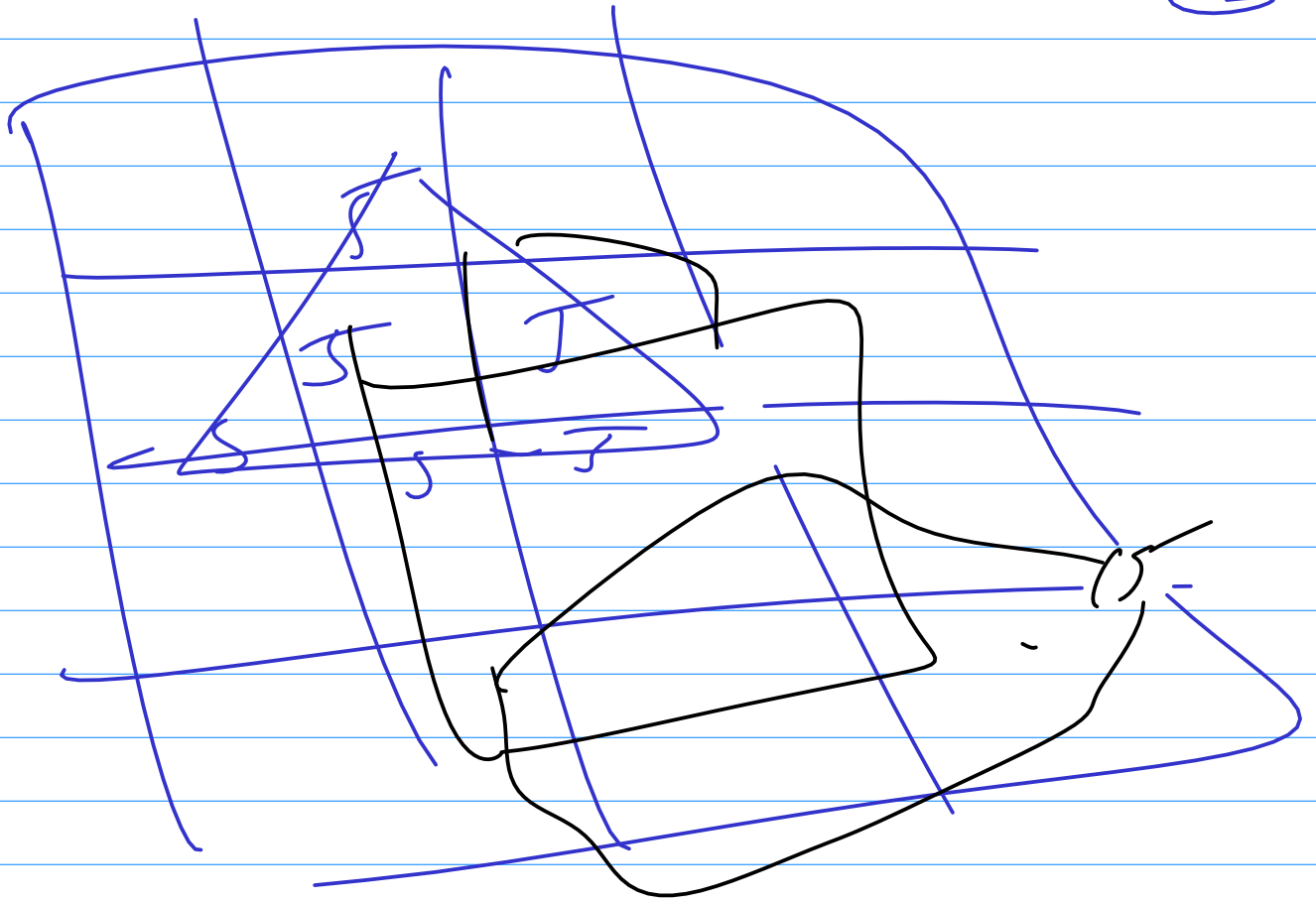
When drawing an object, you overwrite a
pixel only if the object is closer than
whatever is already in that pixel. Then you
update both the color and the depth for that
pxel.