Decaling w/ Depth Buffer (Painter's Alg)

1. Disable depth buffer updates
2. Draw the base polygon
3. Draw the decal polygons
4. Disable color buffer updates
5. Enable depth buffer updates
6. Draw base polygon
7. Reset state (enable color buffers)

Decaling w/ Depth Buffer (Painter's Alg)

1. Disable depth buffer updates — glEnable(GL_DEPTH_TEST) glDepthMask(GL_FALSE)
2. Draw the base polygon
3. Draw the decal polygons
4. Disable color buffer updates — glColorMask(GL_FALSE,…)
5. Enable depth buffer updates — glDepthMask(GL_TRUE)
6. Draw base polygon
7. Reset state (enable color buffers) — glColorMask(GL_TRUE…)

Decaling w/ stencil buffer

A. Create a mask in the stencil buffer which defines the decal region

B. Use this mask in 2 passes:

base polygon

decal polygon(s)

Decaling w/ stencil buffer

1. Enable stenciling
2. Set test to always pass
   w/ref=1, mask=1
3. Set stencil op
   1: if depth passes
   0: if depth fails
4. Draw the base polygon
5. Set stencil function to pass
6. Disable writes to the stencil buf
7. Turn off depth buffering
8. Render the decal polygon

Decaling w/ stencil buffer

1. Enable stenciling
2. Set test to always pass
   w/ref=1, mask=1
3. Set stencil op
   1: if depth passes
   0: if depth fails
4. Draw the base polygon
5. Set stencil function to pass
6. Disable writes to the stencil buf
7. Turn off depth buffering
8. Render the decal polygon
9. Reset state

```
glEnable(GL_Stencil_Test)
glStencilFunc(GL_ALWAYS,1,1)

glStencilOp(GL_KEEP,
    GL_ZERO, GL_REPLACE)


glStencilFunc(GL_EQUAL,1,1)
glStencilOp(GL_KEEP, GL_KEEP,
    GL_KEEP)
glDisable(GL_DEPTH_TEST)
glDisable(GL_STENCIL_TEST)
glEnable(GL_DEPTH_TEST)
```