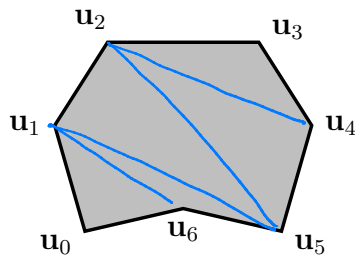


Name: *Answer Key (See also gradescope rubric.)*
 PID:

1. Let R be the non-convex, seven-sided region as shown. For both (a) and (b), the triangle fan or strip should exactly cover the region R , with no degenerate triangles and all triangles front-facing under the default CCW convention. (Your answers should include repeated vertices if needed.)



Blue edges show triangles for the triangle strip with vertices as given the answer to problem 1(b).

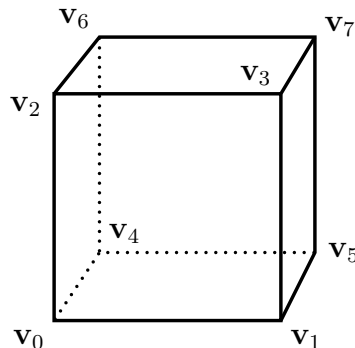
(a) Give a variable order for the vertices that covers R with a single triangle fan.

$v_6, v_5, v_4, v_3, v_2, v_1, v_0$ — or any cyclic permutation, but not starting with u_0 or u_5

(b) Give a variable order for the vertices that covers R with a single triangle strip.

$u_0, u_6, u_1, u_5, u_2, u_4, u_3$ (Other answers are possible.)

2. A cube has vertices v_0 through v_7 as shown. Given an ordering of the vertices that renders that renders the four side faces — but not the top or bottom faces — as a single triangle strip. The faces should all face outward from the cube. (Your answer should include repeated vertices if needed.)



$\vec{v}_2, \vec{v}_0, \vec{v}_3, \vec{v}_1, \vec{v}_7, \vec{v}_5, \vec{v}_6, \vec{v}_4, \vec{v}_2, \vec{v}_0$.

(Many other answers are possible.)

