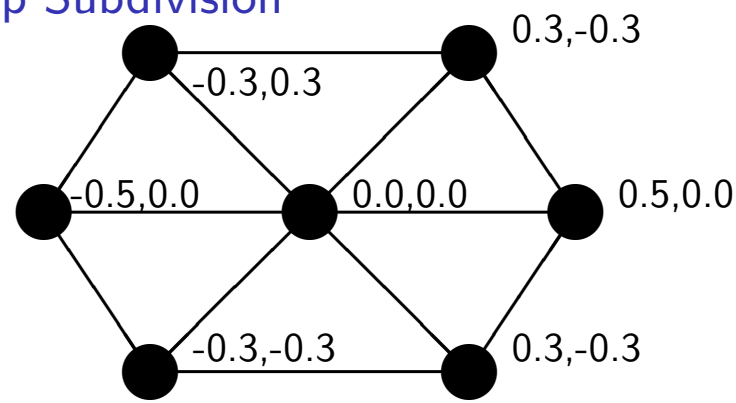
Exercises - Theoretical

Loop Subdivision

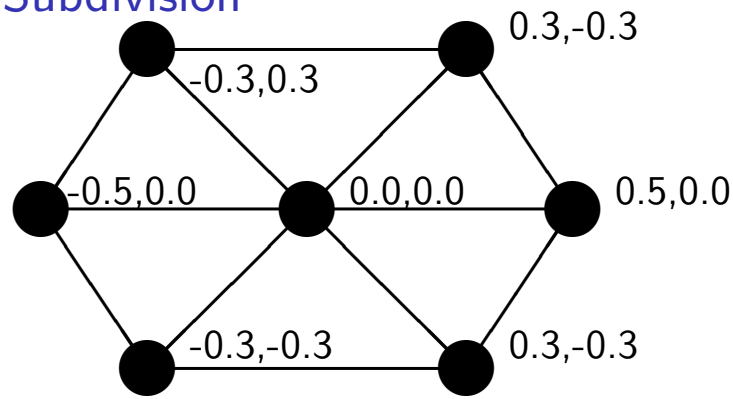


Use pen and paper and apply the loop subdivision scheme to this triangle mesh

1. How many new triangles do we get for each old triangle?
2. Write pseudo (or C/C++) code for the half-edge adjacency queries needed to create the new vertices/triangles
3. How do we handle the boundary?

Exercises - Theoretical

$\sqrt{3}$ Subdivision



Use pen and paper and apply the $\sqrt{3}$ subdivision scheme to this triangle mesh

1. How many new triangles do we get for each old triangle?
2. Write pseudo (or C/C++) code for the half-edge adjacency queries needed to create the new vertices/triangles
3. How do we handle the boundary?