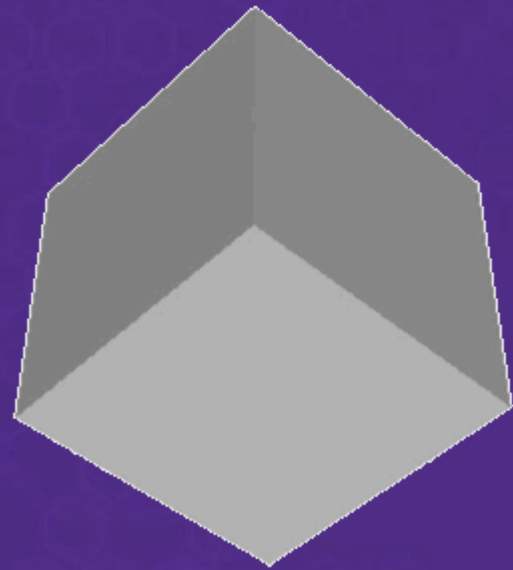


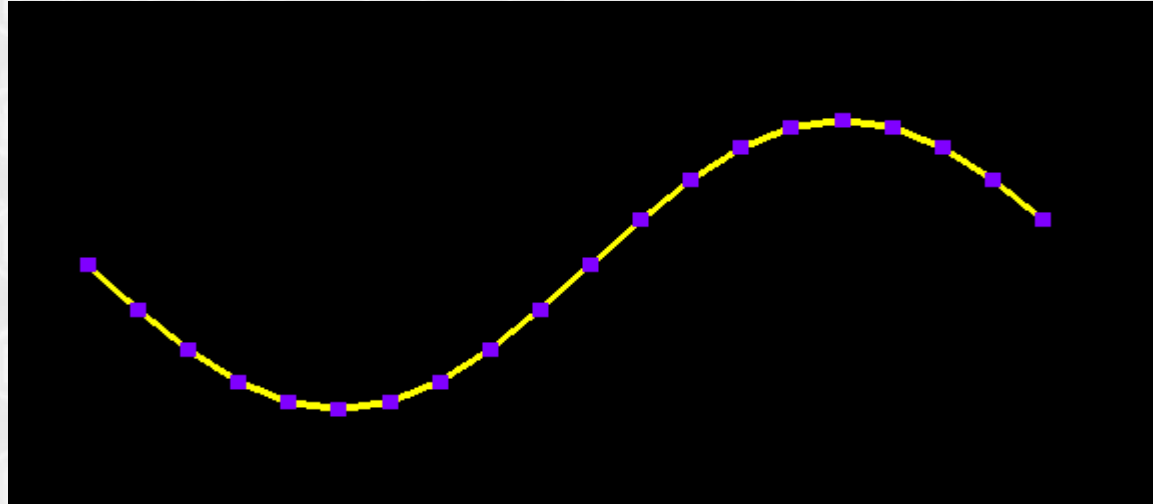
# Developing Graphics Frameworks with Java and OpenGL



Part 07: Using Multiple GPU Programs; Vector class

# Using Multiple GPU Programs

- Goal: generate pictures such as:



- reuses vertex position data
- need different GPU programs for different fragment shaders (pixel colors)
- need different VAOs to manage associations between buffer and program vars
- need to call `glDrawArrays` twice for different draw styles

# Vector class

- Simplify generating vertex data
- `public Vector(int size)`
- `public Vector(double... v)`
- `public void addValues(double... v)`
- `public void multiplyScalar(double s)`
- `public static float[] flattenList(List<Vector> vecList)`