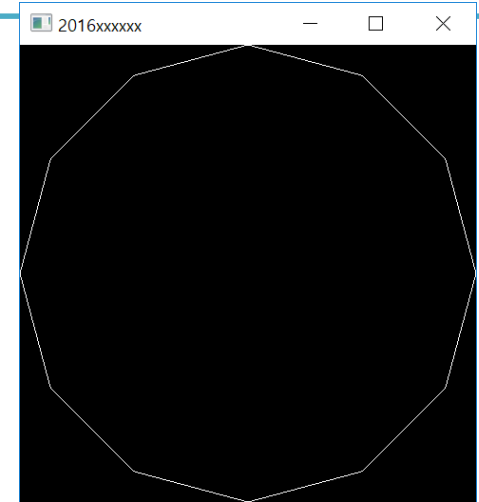


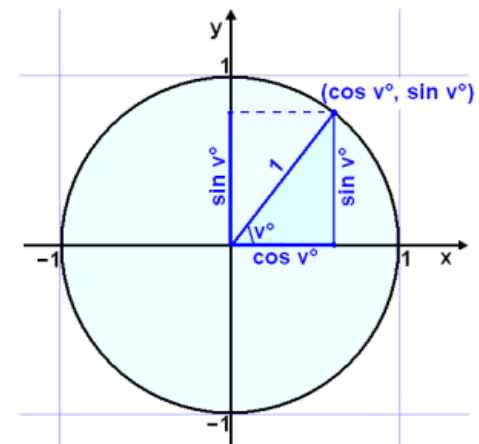
Daily Assignment 4

Check next slides
for how to submit!

- Write down a Python program to draw a regular 12-sided polygon (dodecagon, 정12각형).
 - Use `np.linspace()` (or `np.arange()`), `np.cos()`, `np.sin()` to compute the positions of vertices
 - Do not hardcode the position of each vertex
- **Set the window title to your student number.**
- Set the window size to (480,480).
- The 12 vertices should be specified counterclockwise starting from the vertex on the x-axis.



(Hint)



Daily Assignment 4

- If the keys 1, 2, 3, ... 9, 0 are entered, the primitive type should be changed.

- Hint: Use a global variable to store the primitive type

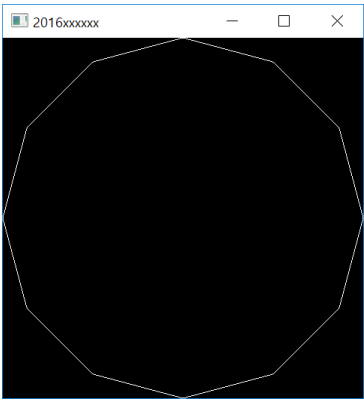
Key	Primitive Type
1	GL_POINTS
2	GL_LINES
3	GL_LINE_STRIP
4	GL_LINE_LOOP
5	GL_TRIANGLES
6	GL_TRIANGLE_STRIP
7	GL_TRIANGLE_FAN
8	GL_QUADS
9	GL_QUAD_STRIP
10	GL_POLYGON

- Global variables in Python

- <https://www.geeksforgeeks.org/global-local-variables-python/> for more information

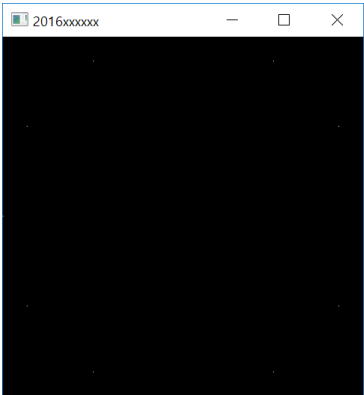
```
# This function modifies global variable 's'
def f():
    global s
    print s
    s = "Look for Geeksforgeeks Python Section"
    print s

# Global Scope
s = "Python is great!"
f()
print s
```

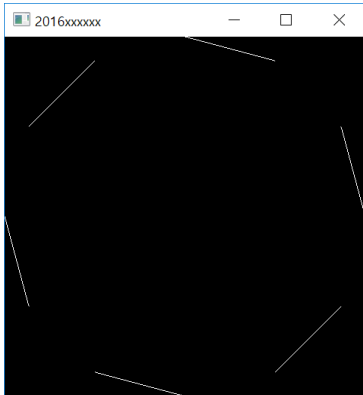


When the program starts

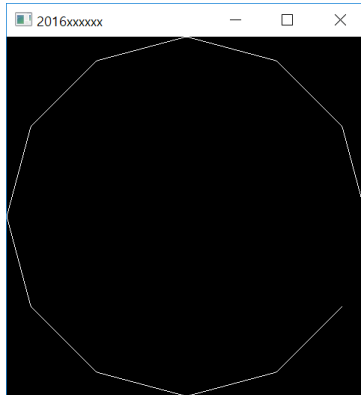
Press '1'



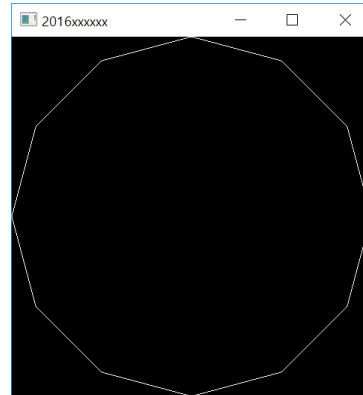
Press '2'



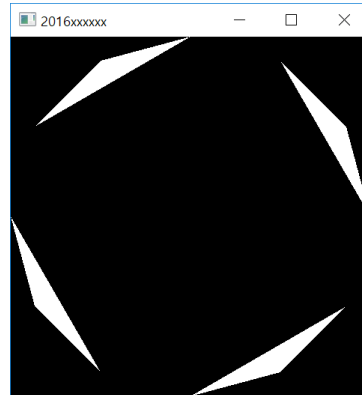
Press '3'



Press '4'



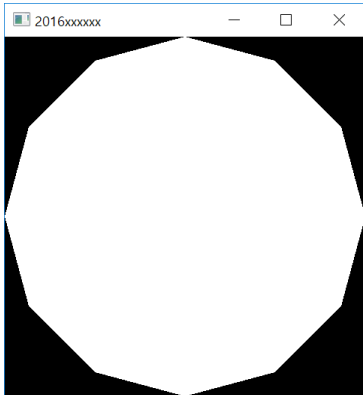
Press '5'



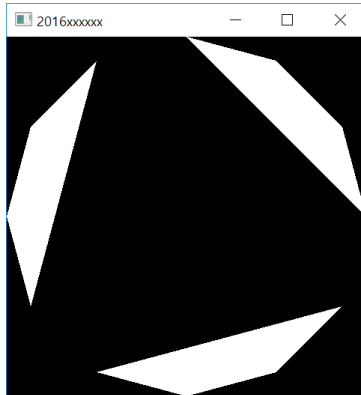
Press '6'



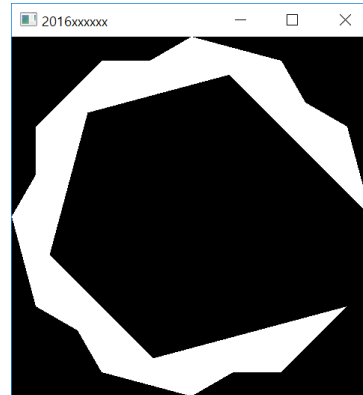
Press '7'



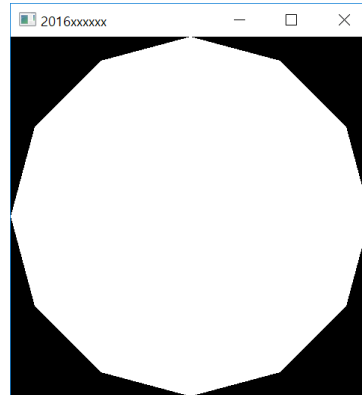
Press '8'



Press '9'



Press '0'



How to Submit

- What you have to submit:
 - Only **one** .py file: *main.py*
- Write down all your code to *main.py*
- `> py -3 main.py` or `$ python3 main.py` should show your glfw window.

How to Submit

- Submit your assignment **only through the Assignment (과제) menu of the lecture home** at portal.hanyang.ac.kr.
- **Recommended due date: Today's lecture end time**
- (Hard due date: 23:59 Today)