Python Programming for Kids

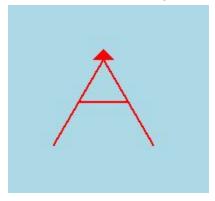
Class Homeworks

Week 3 (due: 10/5/2019)

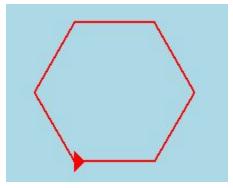
1) User Turtle to draw a capital letter A and position the pen as shown in the following image.

Requirements:

- You can only use penup(), pendown(), forward(), backward(), left() and right() functions. You are not allowed to use goto() function.
- The top inner angle of letter A is 60 degrees.



2) Write a program that can draw a <u>regular polygon</u> of any number of edges. Your program should allow a user to enter the number of edges, then draw the polygon. Hint: find the value of the internal / external angles of the polygon. You will also need to use "for loop" in your program.



3) Write a program that can draw a circle. Your program should allow a user to enter the radius of the circle.

Hints:

- a) Use your program solution for problem 2, to draw a polygon with 72 edges. What do you get? How about a polygon with 120 edges? Now you should know how to let computers draw a circle.
- b) To draw the circle at a given radius, you will also need to calculate the edge length of a polygon which is inscribed in a circle. The radius of the circle is entered by the user.

