

05.3 - Star Pattern

Starting with the code provided in `star_pattern_template.py`, use a loop with turtle graphics to draw a star pattern that has a user specified number of points. First ask the user how many points they want on the star. Then draw the star by having the turtle trace its perimeter. The inner angle of a star point A will be equal to 360° divided by the number of points on the star.

$$A = 360^\circ / \text{points}$$

The concave angle between star points B will be twice the inner angle.

$$B = 2A$$

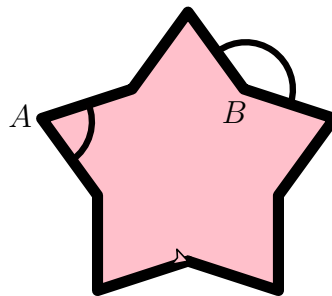


Figure 1: A five point star for Exercise 05.3.

Test your code by comparing your results to the five point star above and the two additional test cases shown below. You may choose any colors except white as long as you use a different color for the outline as you use for the fill. Save your program as `star_pattern_login.py`, where `login` is your Purdue login. Then submit it along with a screenshot showing **all 3** test cases.

Hints:

- Do not modify the size of the canvas provided in the template.
- Start drawing from the bottom inner point.
- Each length of each side should be 60 pixels.
- The initial angle is different from A or B and should be set outside of your loop.

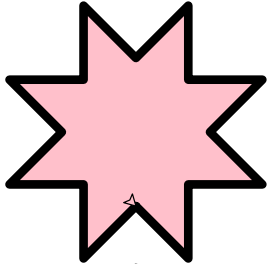
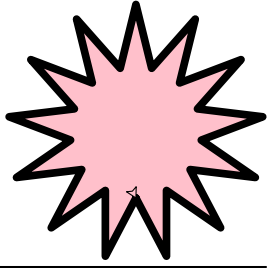
Input	Output
points	figure
8	
13	

Table 1: Additional test cases for Exercise 05.3