Task 4 Loops

## Task 4a

Copy and complete the below code



Save as **task4a**

## Task 4b

You learned how to draw a triangle in task 2a. Now, draw a triangle rt (120) but use the for loop to make it more efficient. Save this as **task 4b**

## Task 4c – 4f

Using your new knowledge of for loops complete the below shapes and save as the correct file name.

**Note:** all external angles are calculated with the **formula:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Shape**  | **Number sides**  | **External angle**  | **Save as** |
| Pentagon  | 5  | 72  | Task4c.py |
| Hexagon  | 6  | 60  | Task4d.py |
| Octagon  | 8  | 45  | Task4e.py |
| Decagon  | 10  | 36  | Task4f.py |

## Task 4g

Use the for loop to create the star, the angle is 144 degrees

Save as **task 4g**

|  |  |
| --- | --- |
| **fd ()** | **Move the arrow forward**  |
| **bk ()** | **Move the arrow backwards**  |
| **rt ()** | **Rotate the arrow to the right**  |
| **lt ()** | **Rotate the arrow to the left**  |
| **pu ()** | **Lift the pen to stop drawing**  |
| **pd ()** | **Replace the pen to continue drawing** |
| **fillcolor (“ “)** | **Choose the colour to fill the shape**  |
| **begin\_fill ()** | **Start to fill the shape before drawing the shape**  |
| **end\_fill ()** | **Finish the colour fill after drawing the shape**  |
| **pencolor (“ “)** | **Change the colour of the pen**  |
| **pensize ()** | **Change the thickness of the pen**  |