**Step 1: Drawing Basic Shapes With Python Turtle**

1. Create an new Repl by selecting the **“Python with Turtle”** language / environment.



1. Begin all of your turtle programs with the following code to create a “pen”:

import turtle

myPen = turtle.Turtle()

1. Review the following chart for a list of Turtle commands.



1. Use the following program to draw a red square.





1. Switch to the “Result” window to see the square.
2. Create a program to draw any one of the shapes “b”, ”d”, or “e” shown in the figures below.   
   Provide a listing of your program code.

import turtle

myPen = turtle.Turtle()

myPen.forward(50)

myPen.right(90)

myPen.forward(100)

myPen.left(90)

myPen.forward(100)

myPen.right(90)

myPen.forward(50)

myPen.right(90)

myPen.forward(100)

myPen.left(90)

myPen.forward(100)

myPen.right(90)

myPen.forward(50)

myPen.right(90)

myPen.forward(100)

myPen.left(90)

myPen.forward(100)

myPen.right(90)

myPen.forward(50)

myPen.right(90)

myPen.forward(100)

myPen.left(90)

myPen.forward(100)

1. Create a program to draw any one of the shapes “c”, or “f” shown in the figures below.   
   Provide a listing of your program code.



import turtle

myPen = turtle.Turtle()

myPen.color("red")

myPen.forward(100)

myPen.right(90)

myPen.forward(100)

myPen.right(90)

myPen.forward(100)

myPen.right(90)

myPen.forward(100)

myPen.right(90)

myPen.up()

myPen.forward(50)

myPen.right(90)

myPen.forward(100)

myPen.right(270)

myPen.color("blue")

myPen.down()

myPen.circle(50)

**Step 2: Christmas / Winter Theme Card**

1. Use your creativity to create a card design using Turtle.
   1. The design must have multiple figures.
   2. The design must have at least two different patterns.
   3. You may repeat patterns.
   4. Provide a listing of your program code.
   5. Provide an image of your program result.

import turtle

myPen = turtle.Turtle()

myPen.speed(10)

myPen.color("black")

#Santa Hat

myPen.right(90)

#Pattern 1 Starts

myPen.forward(50)

myPen.left(90)

myPen.forward(300)

myPen.left(90)

myPen.forward(50)

myPen.left(90)

myPen.forward(300)

myPen.right(90)

#Pattern 1 Ends

myPen.color("red")

myPen.fillcolor("red")

myPen.begin\_fill()

#Pattern 2 Starts

for x in range(80):

myPen.forward(7)

myPen.right(1)

#Pattern 2 Ends

myPen.right(90)

myPen.color("red")

for x in range(30):

myPen.forward(13.4)

myPen.right(1)

myPen.right(69.9)

myPen.forward(299)

myPen.end\_fill()

myPen.up()

myPen.right(90)

for x in range(80):

myPen.forward(7)

myPen.right(1)

myPen.down()

myPen.left(30)

myPen.color("black")

myPen.right(90)

myPen.circle(60)

#Snowman

myPen.up()

myPen.left(49.9)

myPen.right(90)

myPen.forward(450)

myPen.right(90)

myPen.forward(170)

myPen.down()

myPen.circle(200)

myPen.up()

myPen.left(120)

myPen.forward(50)

myPen.right(90)

myPen.forward (150)

myPen.fillcolor("black")

myPen.begin\_fill()

myPen.circle(50)

myPen.end\_fill()

myPen.right(235)

myPen.forward (200)

myPen.begin\_fill()

myPen.circle(50)

myPen.end\_fill()

myPen.up()

myPen.right(125)

myPen.forward(100)

myPen.fillcolor("orange")

myPen.begin\_fill()

myPen.down()

myPen.left(120)

myPen.forward(90)

myPen.right(150)

myPen.forward(90)

myPen.right(100)

myPen.forward(50)

myPen.end\_fill()

myPen.up()

myPen.right(170)

myPen.forward(155)

myPen.right(90)

myPen.down()

myPen.circle(300)

myPen.up()

myPen.left(90)

myPen.forward(100)

myPen.right(90)

myPen.down

myPen.fillcolor("black")

myPen.begin\_fill()

myPen.circle(50)

myPen.end\_fill()

myPen.up()

myPen.left(90)

myPen.forward(100)

myPen.right(90)

myPen.down

myPen.begin\_fill()

myPen.circle(50)

myPen.end\_fill()

myPen.up()

myPen.left(90)

myPen.forward(100)

myPen.right(90)

myPen.down

myPen.begin\_fill()

myPen.circle(50)

myPen.end\_fill()

myPen.up()

myPen.right(90)

myPen.forward(1400)

myPen.write("Merry Christmas", align = "center", font = ("Times New Roman", 50, "Italic"))

