

CSP Activity 1.1.4 - Spinning with Spirographs
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STEP 6:

```
# get two numbers from user
a = int(input("Please enter number a. "))
b = int(input("Please enter number b. "))

# loop while the numbers are not divisible (the remainder is 0)
while (a % b > 0):
    # inform user of result
    print("a and b are not divisible. Please try again.")
    # gather user input again
    a = int(input("Please enter number a. "))
    b = int(input("Please enter number b. "))
# inform user of result
print("a is divisible by b.")
```

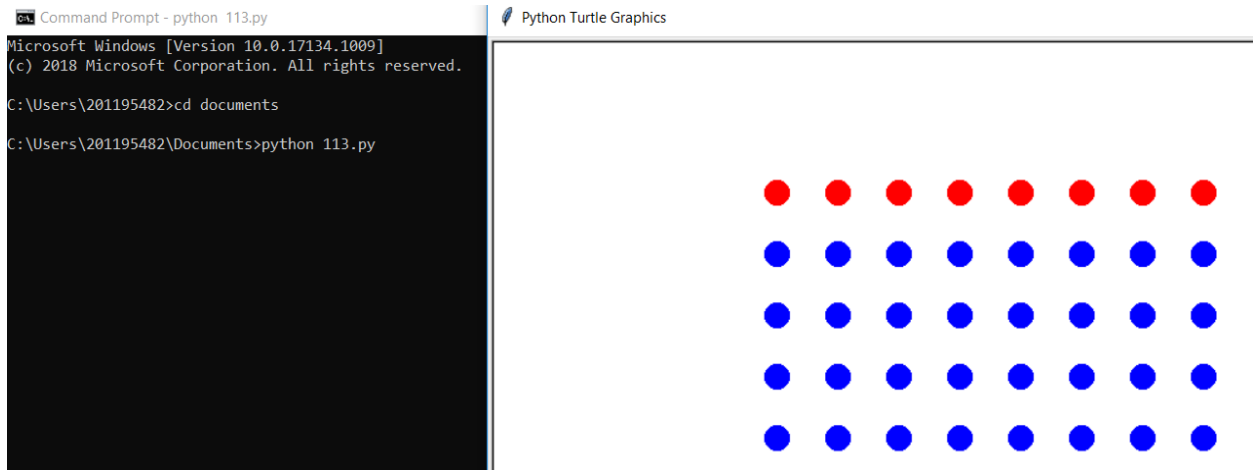
STEP 13:

```
import turtle as trtl

painter = trtl.Turtle()
painter.shape("circle")
painter.hideturtle()
painter.penup()

x = -200
while (x < 200):
    x = x + 50
    y = 200
    painter.goto(x,y)
    painter.color("red")
    painter.stamp()
    while (y > 0):
        y = y - 50
        painter.goto(x,y)
        painter.color("blue")
        painter.stamp()

wn = trtl.Screen()
wn.mainloop()
```



STEP 14:

```
import turtle as trtl

painter = trtl.Turtle()
painter.shape("circle")
painter.hideturtle()
painter.penup()
painter.speed(0)

y = 200
while (y > -200):
    x = -200
    y -= 50
    painter.goto(x,y)
    painter.color("purple")
    painter.stamp()
    while (x < 150):
        x = x + 50
        painter.goto(x,y)
        painter.color("orange")
        painter.stamp()

wn = trtl.Screen()
wn.mainloop()
```



STEP 19

```
import turtle as trtl

painter = trtl.Turtle()
painter.penup()
painter.goto(-200, 0)
painter.pendown()

x = -200
y = 0
move_x = 1
move_y = 1

while True:
    while (x < 100):
        while (y < 100):
            x = x + move_x
            y = y + move_y
            painter.goto(x,y)
        move_y = -1

    while (y > 0):
        x = x + move_x
        y = y + move_y
        painter.goto(x,y)
```

```
    move_y = 1
    while (x > -100):

        while (y > -100):
            x = x - move_x
            y = y - move_y
            painter.goto(x,y)
        move_y = -1

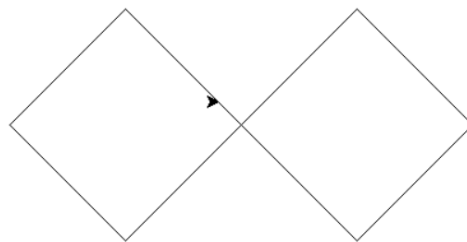
        while (y < 0):
            x = x - move_x
            y = y - move_y
            painter.goto(x,y)
        move_y = 1

wn = turtle.Screen()
wn.mainloop()
```

Command Prompt - python a114_nested_loop_4.py

C:\Users\201195482\Documents>python a114_nested_loop_4.py

Python Turtle Graphics



Stop 22:

Bubble Sort

