Rain Reef (PC04) Pseudocode

- Random colors
- 600
- blue
- 60 waves
- 600
- TBD other students' pattern
- (-300, 0)
- 10? 60 10? 60 60 10?
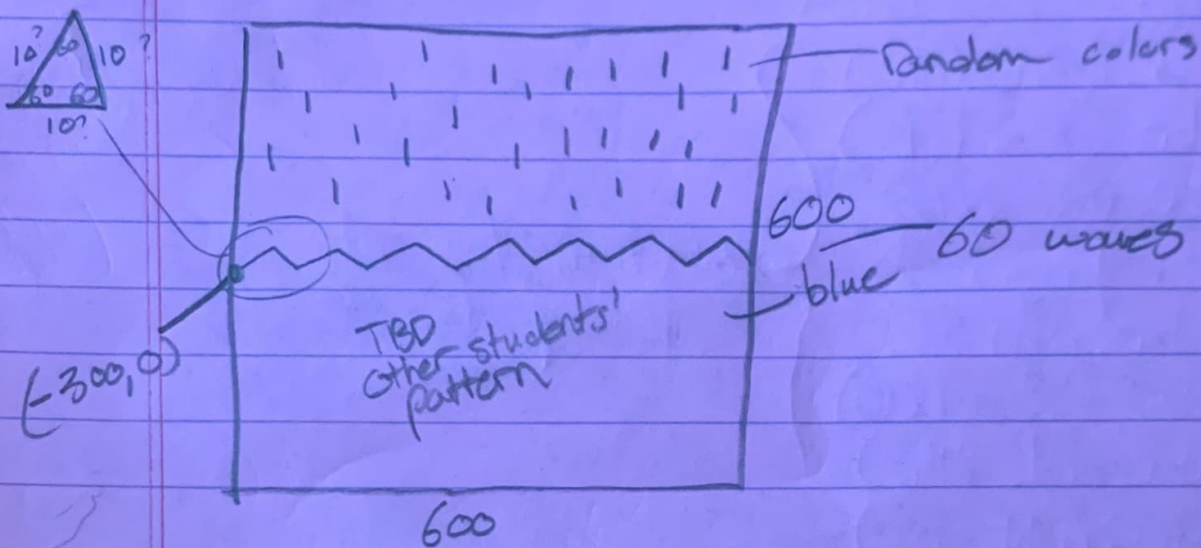
Setup

Import turtle and random libs
Create screen (600 × 600)
Set background to light shy blue
$\hookrightarrow$ (135, 206, 235)?

Water

waterColor = (0, 105, 148)?

water = turtle()
water.up()
water.goto(-300, 0)
water.pencolor(waterColor)
water.fillcolor(waterColor)
() water.down() — water.begin_fill
water.goto(300, 0)
water.goto(300, -300)
water.goto(-300, -300)
water.goto(-300, 0)
water.end_fill()

```
water.right (30)

for wave in range (60)
    water forward (10)
    water.begin_fill()
    water.forward (10)
    water.right (60)
    water.forward (10)
    water.right (60)
    water.forward (10)
    water.end_fill()
    water.right (180)
    water, forward (10)
    water.left (60)
```

} Could turn this into a for loop too.

```
water.up()
```

INSERT OTHER STUDENTS' PATTERN (for coral)
↳ but modify so it is below y = 0.
  ↳ If not possible, change order and print
    sky over any "coral" above y = 0 and then
    do waves. (but still do ocean base first)
↳ also modify to be random colors?

Rainbow Rain

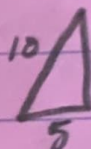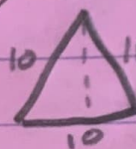So facing down

```
rain = turtle()
rain.up()        ?    rain.right(90)
rain.pensize(1)       more?
for drop in range(300)
```

Move to random locations and draw random color raindrop (line)

Need 5 pixel buffer before water.

```
rain.goto(
```

$5^2 + x^2 = 10^2$

25

```
rain.goto(random.randint(-300,300), random.randint(-300,300))
rain.pencolor(random.randint(0,255), " " , " " )
rain.down()
rain.forward(5)
rain.up()

turtle.done()
```
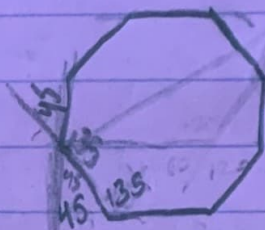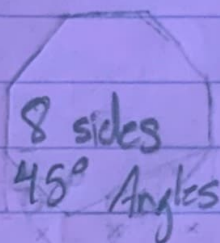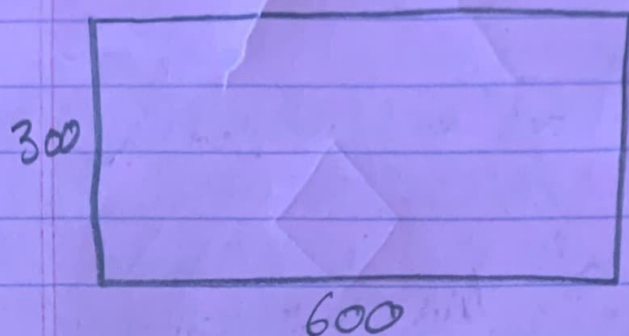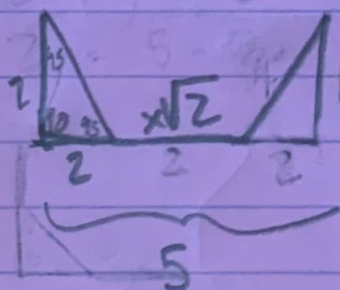
300

600

8 sides
45° Angles

5

$2+\sqrt{2}$

2    $x\sqrt{2}$
2   2   2

5

$x\sqrt{2} + 2x = 5$

$3x^2 = 16$

$9 + 9 = c^2$

$\sqrt{18}$

$49 + 49 = 98$

$64 + 64 =$

$2x^2 = y^2$

$2x + y = 4.$

$(4-2x)(4-2x)$

$16 - 8x - 8x - 4x^2$
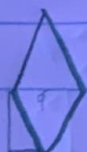
$2x^2 = -4x^2 - 16x + 16$

$6x^2 + 16x - 16 = 0$

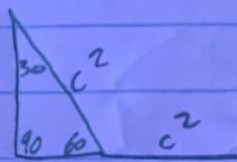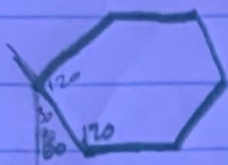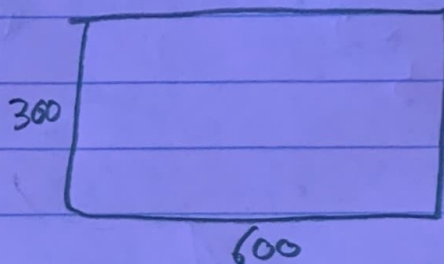$3x^2 + 8x - 8 = 0$

$(3x \quad)(x + 2)$

$y = 4 - 2x$

$2x^2 = \dfrac{(4-2x)^2}{2}$

120
120
30
180

30 c^2
90 60 c^2

45 135

1 4 9 16

$3\sqrt{2}$ 6
6
$3\sqrt{2}$ 6

$3\sqrt{2}$
6
$3\sqrt{2}$

300

600
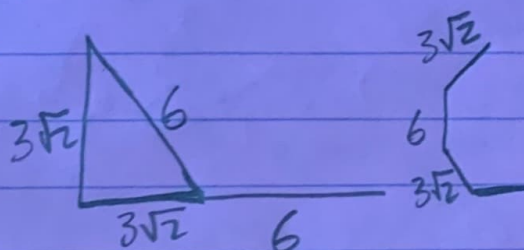
$\dfrac{300}{6+6\sqrt{2}} = 20.71$

$\dfrac{600}{6+6\sqrt{2}} = 41.42$

6
6
$3\sqrt{2}$ 7
$6\sqrt{2}$
6

$7\sqrt{2} = 9.8$

7
7

7

6
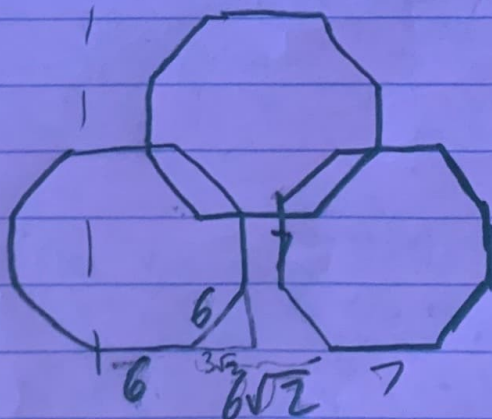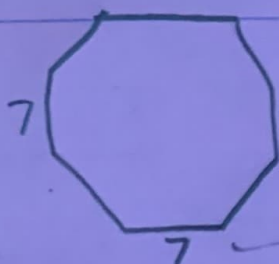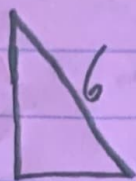
4

$$36 = 2x^2$$
$$x = \sqrt{18}$$

$$16 = 2x^2$$
$$8 = x^2$$

$2\sqrt{18}$

6

$\sqrt{18}$

6

6

$\sqrt{18}$

6   6
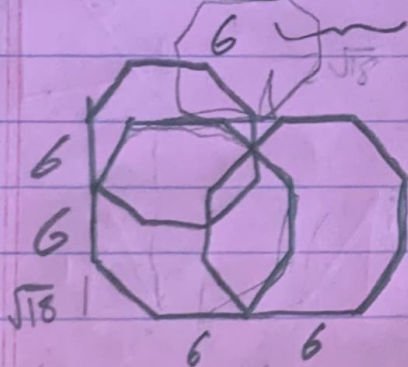
for i in

```
for i in range(20)
    for i in range (100)
        for i in range (80)
            set color random
            forward 6
            angle 45

        forward 6
```

pen(down)

pen(up)
back (600)
left (90)
forward (10)
right (90)