CS128 Homework #2. **Spring 2022**

Task1a: Prompt the user to enter the total number of pennies. Compute and print the equivalent number of quarters and remaining pennies:

```
Total number of pennies:79
79 pennies is equivalent to 3 quarters and 4 pennies
```

```
Total number of pennies:60
60 pennies is equivalent to 2 quarters and 10 pennies
```

Task1b: Copy the code from **task1a** into the **task1b** cell. Prompt for the total number of pennies. Compute and print the equivalent number of quarters, dimes, and remaining pennies. The number of dimes should never be more than 2 (since a quarter is 2 dimes and 5 pennies).

```
Total number of pennies:97
97 pennies is equivalent to 3 quarters, 2 dimes, and 2 pennies
```

```
Total number of pennies:39
39 pennies is equivalent to 1 quarters, 1 dimes, and 4 pennies
```

Task1c: Copy the code from **task1b** into the **task1c** cell. Prompt for the total number of pennies. Compute and print the equivalent number of quarters, dimes, nickels, and remaining pennies. The number of nickels should never be more than 1 (since a dime is 2 nickels). Don't worry about plural/singular for the coins.

```
Total number of pennies:68
68 pennies is equivalent to 2 quarters, 1 dimes, 1 nickels, and 3 pennies
```

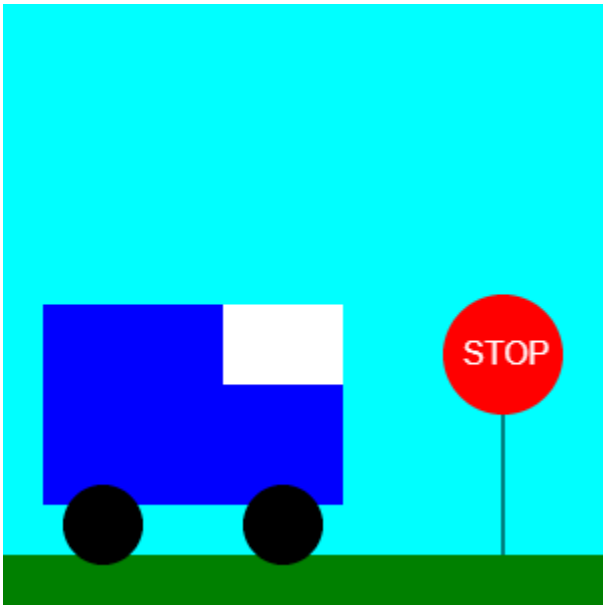
```
Total number of pennies:49
49 pennies is equivalent to 1 quarters, 2 dimes, 0 nickels, and 4 pennies
```

```
Total number of pennies:106
106 pennies is equivalent to 4 quarters, 0 dimes, 1 nickels, and 1 pennies
```

Task2:

NOTE: You must run the first cell to import the Canvas module prior to running this cell.

The existing code draws a 300x300 canvas. Update the code to draw the shapes shown in the screenprint below. Keep in mind 0,0 is at the upper left corner of the canvas, and 300,300 is the lower right corner.



Try adding one geometric shape at a time to the drawing:

1. The aqua sky.

2. The green grass with height 25.

3. The blue truck (150x100) with black wheels (radius 20) and white window (60x40).

4. The red stop sign (radius 30) with a black pole (length 100). The text font is 16px sans-serif.

NOTE: Your placement of the truck and stop sign can differ from the screenprint, as long as it looks approximately the same.

Task3: The main algorithm code creates a 200x200 drawing canvas, draws a black framed rectangle around the canvas area, and sets up the mouse down event to call the **handle_mouse_down** function.

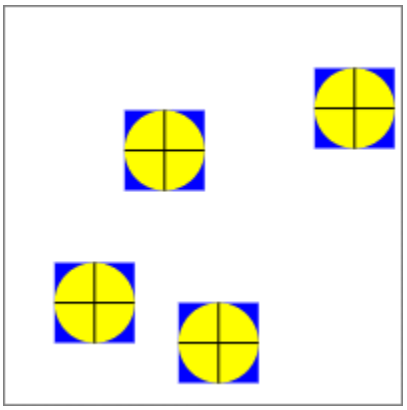
Add code to the **handle_mouse_down function**:

1. Draw a blue filled square with size 40 at the mousedown x,y coordinate.

2. Draw a yellow filled circle with radius 20 in the middle of the blue square.

3. Draw intersecting horizontal and vertical lines across the center of the circle.

For example, after clicking the mouse in 4 locations:



SUBMIT YOUR SOLUTION TO CANVAS.

Submit (1) hw2.ipynb and (2) hw2.pdf to Canvas under the hw2 assignment.