

Test #2 – CITA/CSCI 140

- ↳ The test accounts for 5% of the final grade.
- ↳ There are 4 problems at 25 points each.

- Start by creating a folder called Test2
- At the end, you will zip all of your folders into the Test2 folder.
- The test is due 50 minutes after the class starts.
- You will lose 3 points for each minute that the test is late.

Problem 1

From skills learned in Chapter 4, move the simple green car to the right and off the screen.

Specifications:

- ▶ YOU MUST BEGIN with the starter code below.
- ▶ Put in dynamic mode with draw() and setup().
- ▶ Change the necessary constant number(s) to variable(s).
- ▶ Write the code to create the movement.
- ▶ **DO NOT DO ANYTHING EXTRA. JUST MAKE THE CAR GO OFF THE SCREEN. THAT'S IT.**
- ▶ Save as **Drive_car**

```
/* This one is a super simple rendition
of car moving off of the screen to the
right. Start by creating variable(s) as
necessary.
*/
size(400, 250);
background(#50A0F0);

//The car
stroke(0);
fill(#087E6D);
rect(5, 180, 90, 35, 10, 10, 0, 0);
```



Problem 2

Using the starter code of the sticks, please add lollipops or popsicles to them.

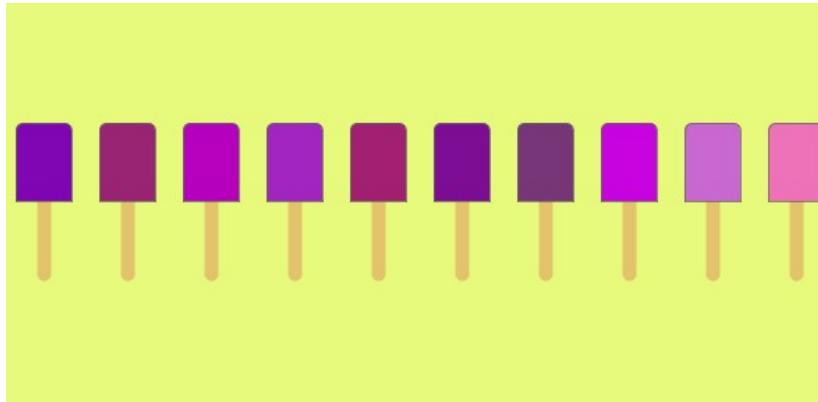
Specifications:

- ▶ YOU MUST use the starter code, which is not the same as the study guide.
- ▶ TIP: No need for dynamic mode unless you want to.
- ▶ Use **random()** to generate random colors of **any kind you wish**.
- ▶ Background does not matter.

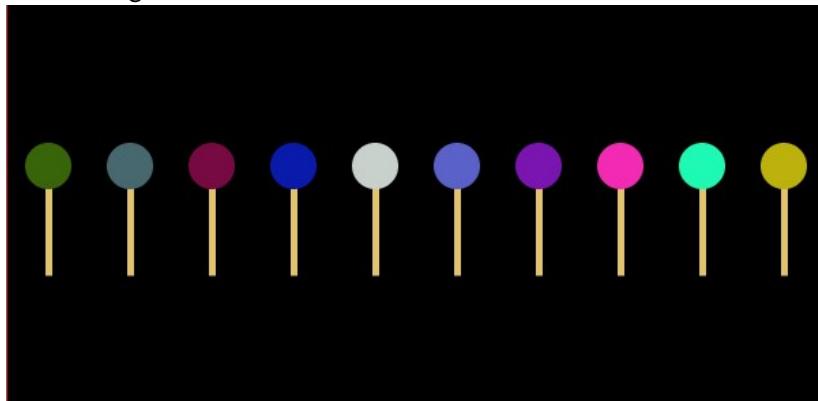
- ▶ If you create popsicles: the pops must have round tops and square bottoms, and be centered on the stick.

Similar to the image below:

```
//The sticks have already been created.  
size(600, 300);  
stroke(0);  
background(255);  
  
for (int x = 30; x < width; x = x+60)  
{  
    stroke(#E3C36C); //beige for stick  
    strokeWeight(10);  
    line(x, 200, x, 120);  
}
```



- ▶ If you create lollipops: You must reduce the stroke weight and change the strokecap to square. Similar to the image below.



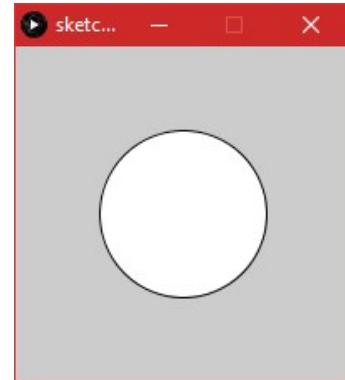
- ▶ Save as **Loopy_pops**

Problem 3

From skills learned by Chapter 4, draw an ellipse in the middle of the screen by using the **width** and **height** system variables.

Specifications:

- ▶ Set screen size to 200 X 200
- ▶ The ellipse must be half of the screen.
Remember to use width & height variables.
- ▶ Your program should only have 2 lines of code.
- ▶ Please don't do anything extra
- ▶ Save as **Ellipse**



Problem 4

Using skills learned in chapter 2, draw a smiley face, and include an arc for the mouth.

Specifications:

- ▶ The size of the window and face do not matter.
- ▶ The face should look similar to the illustration.
- ▶ Remember, you must **include an arc** for the mouth
- ▶ Please don't do anything extra
- ▶ Save as **Smile**



SUBMIT:

Zip your Test2 folder and upload it to OAKS dropbox called Test2