3-Unit 2A– Worksheet 2 Practice Draw Commands

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1. The visual attributes of shapes are controlled with other code elements that set color and gray values, the width of lines, and the quality of the rendering.

```
background(0);       // Set the black background
stroke(255);          // Set line value to white
strokeWeight(5);      // Set line width to 5 pixels
smooth();             // Smooth line edges
line(10, 80, 30, 40); // Left line
line(20, 80, 40, 40);
line(30, 80, 50, 40); // Middle line
line(40, 80, 60, 40); // Right line
line(50, 80, 70, 40);
```

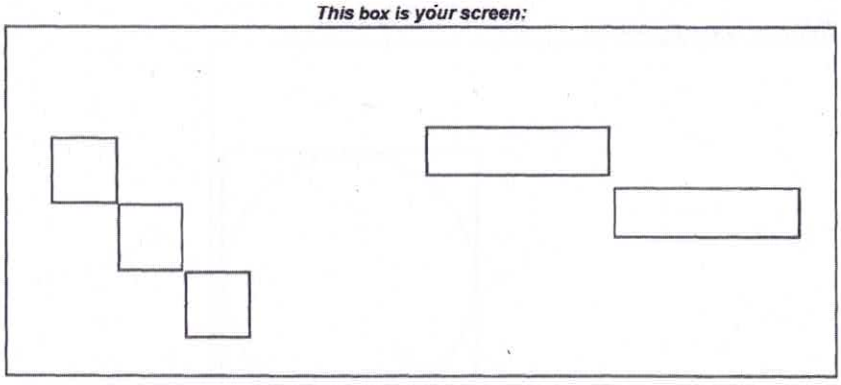
2. Relative to a coordinate position

```
int x = 5;  // Set the horizontal position
int y = 60;  // Set the vertical position
line(x, y, x+20, y-40);   // Line from [5,60] to [25,20]
line(x+10, y, x+30, y-40); // Line from [15,60] to [35,20]
line(x+20, y, x+40, y-40); // Line from [25,60] to [45,20]
line(x+30, y, x+50, y-40); // Line from [35,60] to [55,20]
line(x+40, y, x+60, y-40); // Line from [45,60] to [65,20]
```

3. Code structure
   The code for drawing shapes can be written inside void draw(). Though meant for animation as it executes the code at the rate of 60 times per second, draw() can be used for static drawing as well.

```
void setup(){
 size(200,200);
 background(100);
}
void draw() {
stroke(255);
strokeWeight(5);
smooth();
line(0, 0, 30, 40);
line(50, 80, 70, 40);
}
```

(Cohort B)Task 1B: Label the coordinates for each shape. The screen size is 800 by 500.



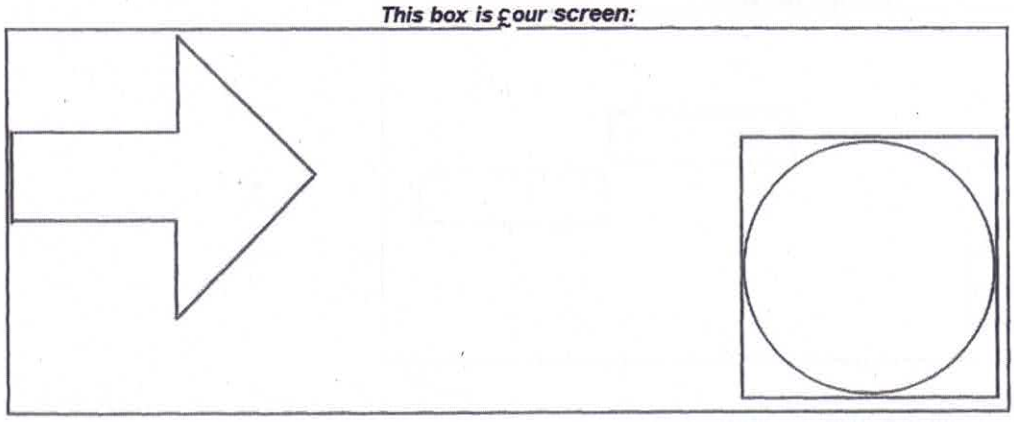
2. Write the code which will produce the above image.

```
void setup () {
  size (800, 500);
} background (255);

void draw () {
  rectMode (CORNERS);
  rect (50, 150, 150, 250);
  rect (150, 250, 250, 350);
  rect (255, 355, 355, 455);
  // last two rectangles on the right
  rect (400, 135, 575, 205);
  rect (575, 215, 750, 285);
}
```

Teacher signature:_____ Date:_____

Task 2B: Label the coordinates for each shape. The screen size is 800 by 500.



2. Write the code which will produce the above image.

```
void setup(){
    size(800, 500);
    background(255);
}
void draw(){
    //the rectangle and circle
    rectMode(CORNERS);
    rect(530, 160, 792, 472);
    ellipseMode(CORNERS);
    ellipse(532, 162, 790, 490);

    //the arrow
    beginShape();
    vertex(150, 3);
    vertex(300, 203);
    vertex(150, 403);
    vertex(150, 283);
    vertex(3, 283);
    vertex(3, 123);
    vertex(150, 123);
    endShape(CLOSE);
}
```

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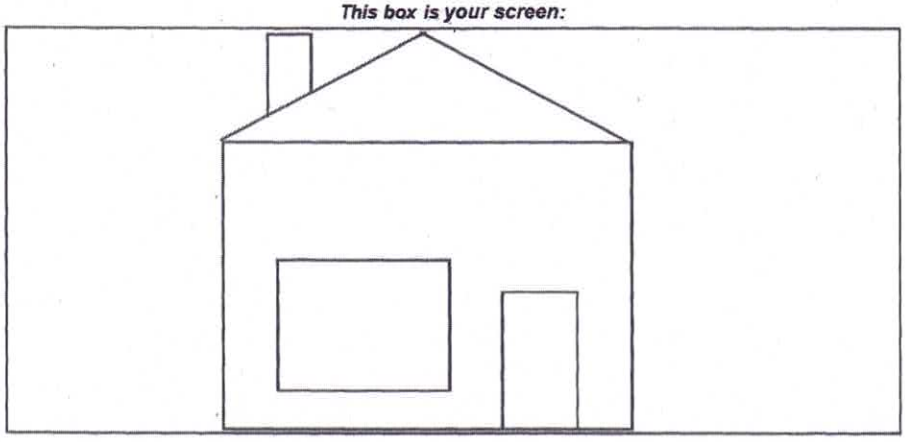
Task 3B: Label the coordinates for each shape. The screen size is 800 by 500.

This box is your screen:



2. Write the code which will produce the above image.

```
void setup(){
   size(800,500);
   background(255);
}
void draw(){
   //main house
   rectMode(CENTER);
   rect(400,330,400,335);
   //roof
   triangle(400,2,600,103,200,163);

   //window
   rectMode(CORNERS);
   rect(240,308,450,468);
   //door
   rect(490,350,560,497);

   //chimney
   quad(250,2,300,2,300,62,250,122);
}
```

Teacher signature:_____ Date:_____

Evaluation: When all signatures are obtained the code must be typed in **3 separate Processing sketches**. Correct your code where necessary for an accurate image. Name each sketch accordingly. Upon completion submit a folder with all 3 sketches. **Name it Yourname_U2W2.pde and drop off.**