

6月18日の授業中に作成したスケッチ

```
//その1
boolean isOverlapped(float x0, float y0, float r0,
                    float x1, float y1, float r1) {
    float d = dist(x0, y0, x1, y1);
    return d <= (r0+r1);
    /*
    if (d <= r0+r1) {
        return true;
    } else {
        return false;
    }
    */
}

void setup() {
    size(400, 400);
}

void draw() {
    float big = 100;
    float small = 30;

    background(255);
    fill(255, 15, 15, 255);
    ellipse(width/2, height/2, 2*big, 2*big);
    /*
    if (!isOverlapped(width/2, height/2, big,
                    mouseX, mouseY, small)) {
        */
    if (isOverlapped(width/2, height/2, big,
                    mouseX, mouseY, small) == false) {
        fill(255, 15, 15, 30);
    }
    ellipse(mouseX, mouseY, 2*small, 2*small);
}

//その2
void setup(){
    size(400,400);
    background(255);
}

void draw(){
}

void mouseDragged(){
    fill(128);
    stroke(128);
    ellipse(mouseX,mouseY,20,20);
}

//その3
float xCircle;
```

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float yCircle;
float rCircle;
boolean drawing;

void setup(){
  size(400,400);
  xCircle = -1;
  yCircle = -1;
  rCircle = 0;
  drawing = false;
}

void draw(){
  background(255);
  if(drawing){
    noFill();
    stroke(10,170,255);
    ellipse(xCircle,yCircle,2*rCircle,2*rCircle);
    rCircle += 1;
    if(rCircle > 2*max(width,height)){
      drawing = false;
    }
  }
}

void mouseDragged(){
  fill(128);
  stroke(128);
  ellipse(mouseX,mouseY,20,20);
}

void mouseReleased(){
  drawing = true;
  xCircle = mouseX;
  yCircle = mouseY;
  rCircle = 1;
}

//その4 (動かない)
void setup(){
  size(400,400);
}

void draw(){
  background(255);
  fill(128);
  int x = 0;
  while(x < width){
    x += int(random(10));
    ellipse(x,height/2,10,10);
  }
}

void keyPressed(){
```

```
println("pressed"); //<>//
}

//その5
boolean isOverlapped(float xTip,float yTip,
                    float xCircle,float yCircle,float r){
    if((xTip-r <= xCircle && xCircle <= xTip+r)
        && (0 <= yCircle && yCircle <= yTip)){
        return true;
    }else if(dist(xTip,yTip,xCircle,yCircle) <= r){
        return true;
    }else if(dist(xTip,0,xCircle,yCircle) <= r){
        return true;
    }
    /*
    else{
        return false;
    }
    */
    return false;
}

void setup(){
    size(400,400);
}

void draw(){
    background(255);
    stroke(0);
    float xTip = width/2;
    float yTip = height/2;
    line(xTip,0,xTip,yTip);
    float radius = 20;
    if(isOverlapped(xTip,yTip,mouseX,mouseY,radius)){
        fill(255,10,10);
    }else{
        fill(10,255,10);
    }
    ellipse(mouseX,mouseY,2*radius,2*radius);
}

//その6
boolean isOverlapped(float xTip,float yTip,
                    float xCircle,float yCircle,float r){
    if((xTip-r <= xCircle && xCircle <= xTip+r)
        && (0 <= yCircle && yCircle <= yTip)){
        return true;
    }else if(dist(xTip,yTip,xCircle,yCircle) <= r){
        return true;
    }else if(dist(xTip,0,xCircle,yCircle) <= r){
        return true;
    }
    /*
    else{

```

```
        return false;
    }
    */
    return false;
}

void setup(){
    size(400,400);
}

void draw(){
    background(255);
    stroke(0);
    float xTip0 = width/3;
    float yTip0 = height/3;
    float xTip1 = 2*width/3;
    float yTip1 = 2*height/3;
    line(xTip0,0,xTip0,yTip0);
    line(xTip1,0,xTip1,yTip1);
    float radius = 20;
    if(isOverlapped(xTip0,yTip0,mouseX,mouseY,radius) ||
        isOverlapped(xTip1,yTip1,mouseX,mouseY,radius)){
        fill(255,10,10);
    }else{
        fill(10,255,10);
    }
    ellipse(mouseX,mouseY,2*radius,2*radius);
}

//その7
void mouseWheel(MouseEvent event) {
    float e = event.getCount();
    println(e);
}

void mousePressed() {
    println("mouse pressed "+mouseButton);
}

void mouseDragged() {
    println("mouse dragged");
}

void mouseReleased() {
    println("mouse released");
}

void mouseMoved() {
    println("mouse moved");
}

void keyPressed() {
    println("pressed " + int(key) + " " + keyCode);
}

void keyTyped() {
    println("typed " + int(key) + " " + keyCode);
}
```

```
}  
void keyReleased() {  
    println("released " + int(key) + " " + keyCode);  
}  
  
void setup() {  
    size(200, 200);  
}  
  
void draw() {  
    background(255);  
}  
  
//その8  
float xPack;  
float yPack;  
  
void drawPackMan() {  
    pushMatrix();  
    fill(255, 255, 10);  
    float angle=PI/6;  
    arc(0, 0, 40, 40, angle, 2*PI-angle);  
    rotate(angle);  
    line(0, 0, 20, 0);  
    rotate(-2*angle);  
    line(0, 0, 20, 0);  
    popMatrix();  
}  
  
void setup() {  
    size(400, 400);  
    xPack = width/2;  
    yPack = height/2;  
}  
  
void draw() {  
    background(255);  
    translate(xPack, yPack);  
    drawPackMan();  
}  
  
void keyPressed() {  
    if (key == CODED) {  
        if (keyCode == LEFT) {  
            xPack -= 1;  
        } else if (keyCode == RIGHT) {  
            xPack += 1;  
        } else if (keyCode == UP) {  
            yPack -= 1;  
        } else if (keyCode == DOWN) {  
            yPack += 1;  
        }  
    } else if (key == 's'){  
        save("pack"+frameCount+".png");  
    }  
}
```

}
}