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Bounce_Example___4_Wall__Radomized_
//Bounce Example - Four Wall (Randomized)
//Mr. H.

//declare and initialize horizontal variables
float x = 0, bounceX = 1;
//declare and initialize vertical variables
float y = 300, bounceY = 1;


void setup() {
 size(600, 600);
}

void draw() {
 background(255);
 ellipse(x, y, 20, 20);
 //changes x and y position of ball
 x = x + bounceX;
 y = y + bounceY;

 //change direction if ball hits a side
 if (x <= 0 || x >= 600) {
   //introduces a random change in x
   bounceX = bounceX * random(-2, -1);
   //reduces change in x if it gets too large
   if (abs(bounceX) >= 4) {
     bounceX = bounceX / 2;
   }
 }

 //change direction if ball hits top or bottom
 if (y <= 0 || y >= 600) {
   //introduces a random change in y
   bounceY = bounceY * random(-2, -1);
   //reduces change in y if it gets too large
   if (abs(bounceY) >= 4) {
     bounceY = bounceY / 2;
   }
 }
}
```