CSE2006 LAB 10

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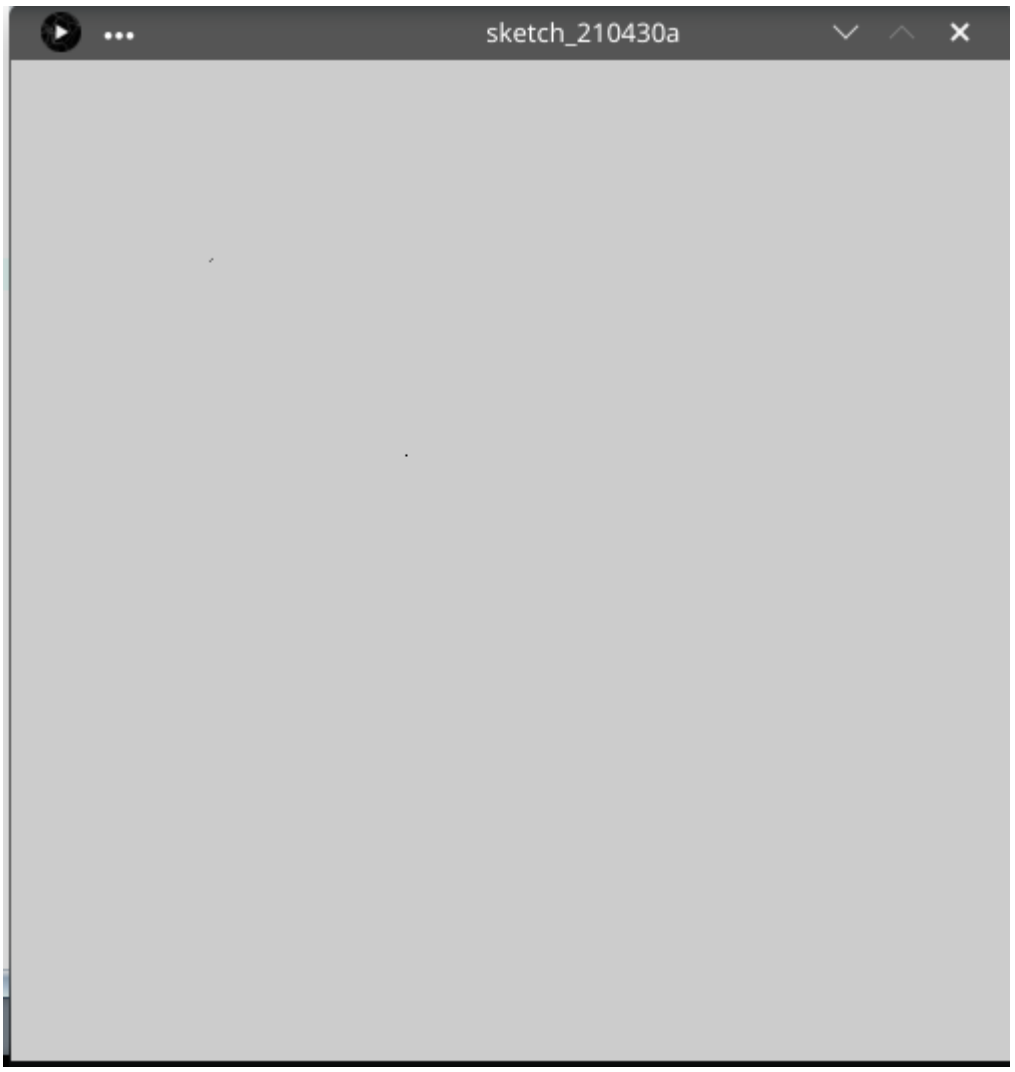
Write programs to implement the following 3D shapes and their transformations- 1. point 2. line 3. cube 4. cuboid 5. sphere

1. **Point**

```
void setup () {
  size(500,500,P3D);
  noLoop();
}
void draw(){
 point(100,100);
 translate(100,100,20);
 point(100,100);
}
```

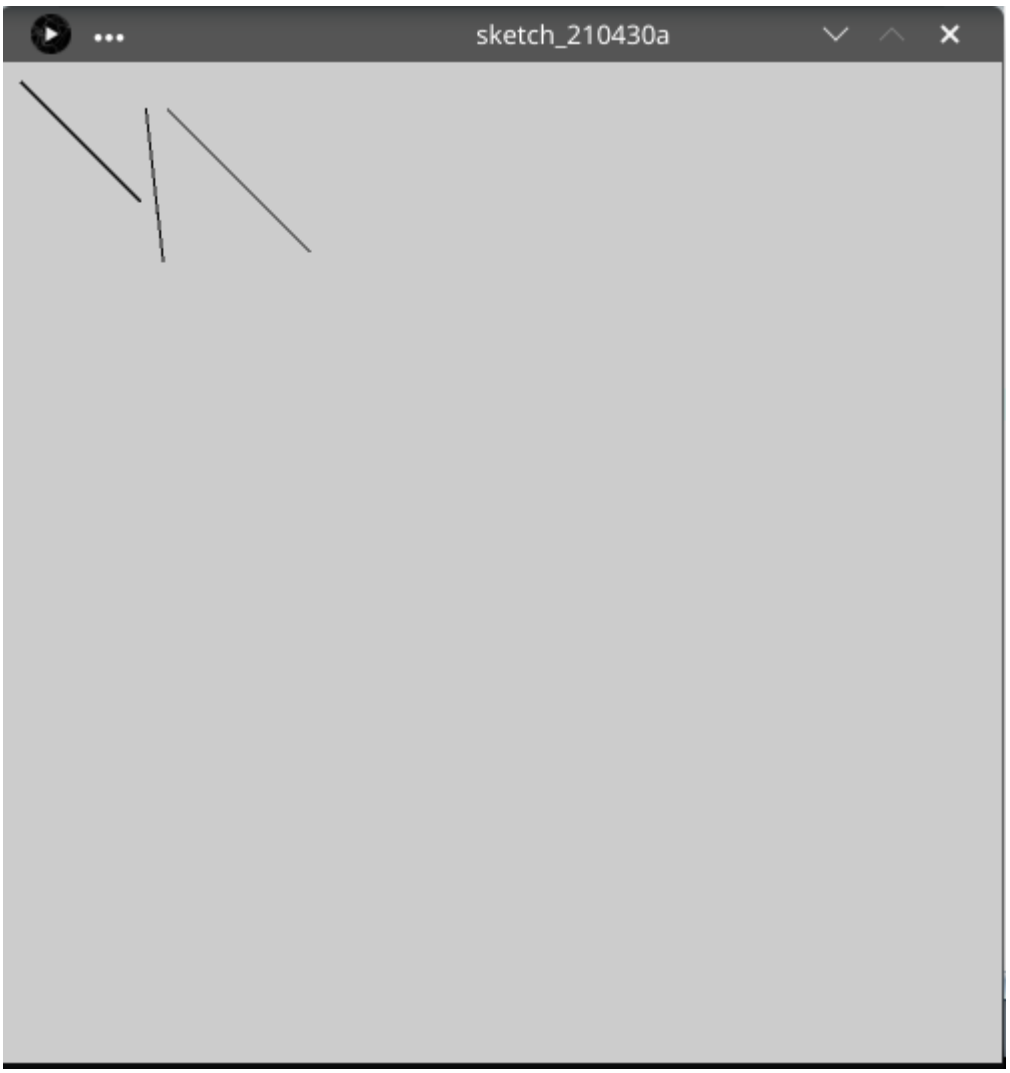
Output:



2. **Line**

```
void setup () {
  size(500,500,P3D);
  noLoop();
}
void draw(){
 line(10,10,70,70);
 translate(100,50,70);
 line(10,10,70,70);
 rotateX(PI/6);
 rotateY(PI/8);
 rotateZ(PI/6);
 line(10,10,70,70);
}
```

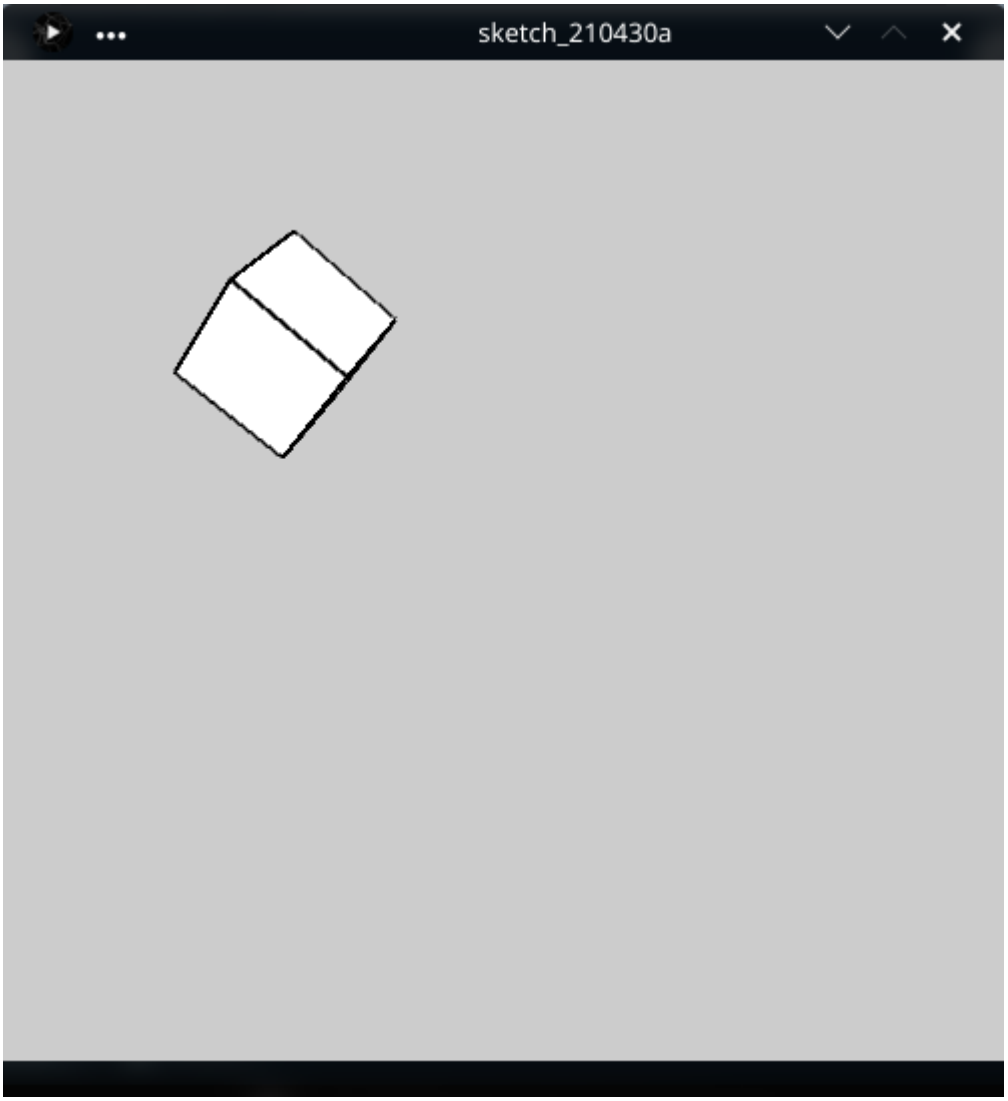
Output:



3. **Cube**

```
void setup () {
  size(500,500,P3D);
  noLoop();
}
void draw(){
 translate(150,150,30);
  rotateY(PI/4);
 rotateX(PI/6);
 rotateZ(PI/4);
 scale(2);
 box(30);
}
```

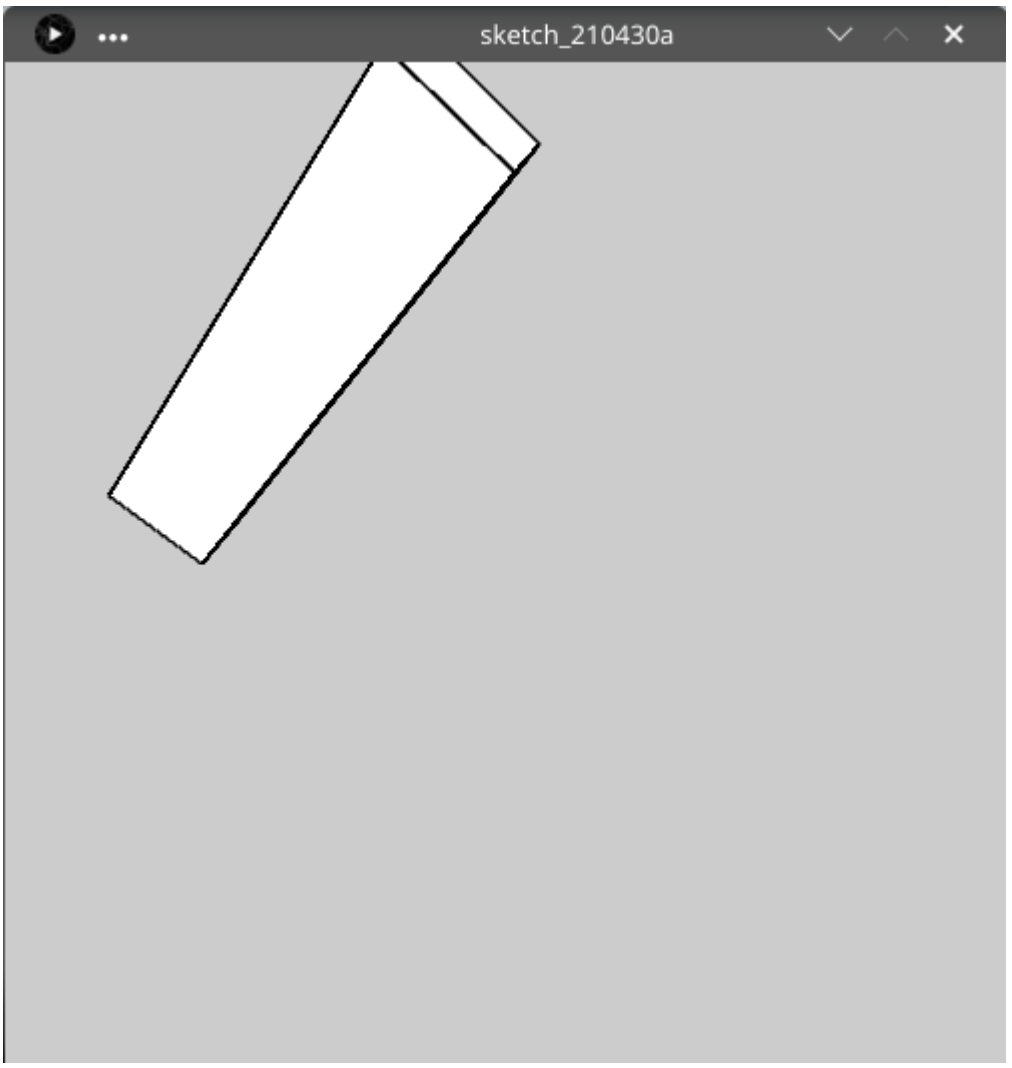
Output:



4. **Cuboid**

```
void setup () {
  size(500,500,P3D);
  noLoop();
}
void draw(){
 translate(150,150,30);
  rotateY(PI/4);
 rotateX(PI/6);
 rotateZ(PI/4);
 scale(2);
 box(30,20,140);
}
```

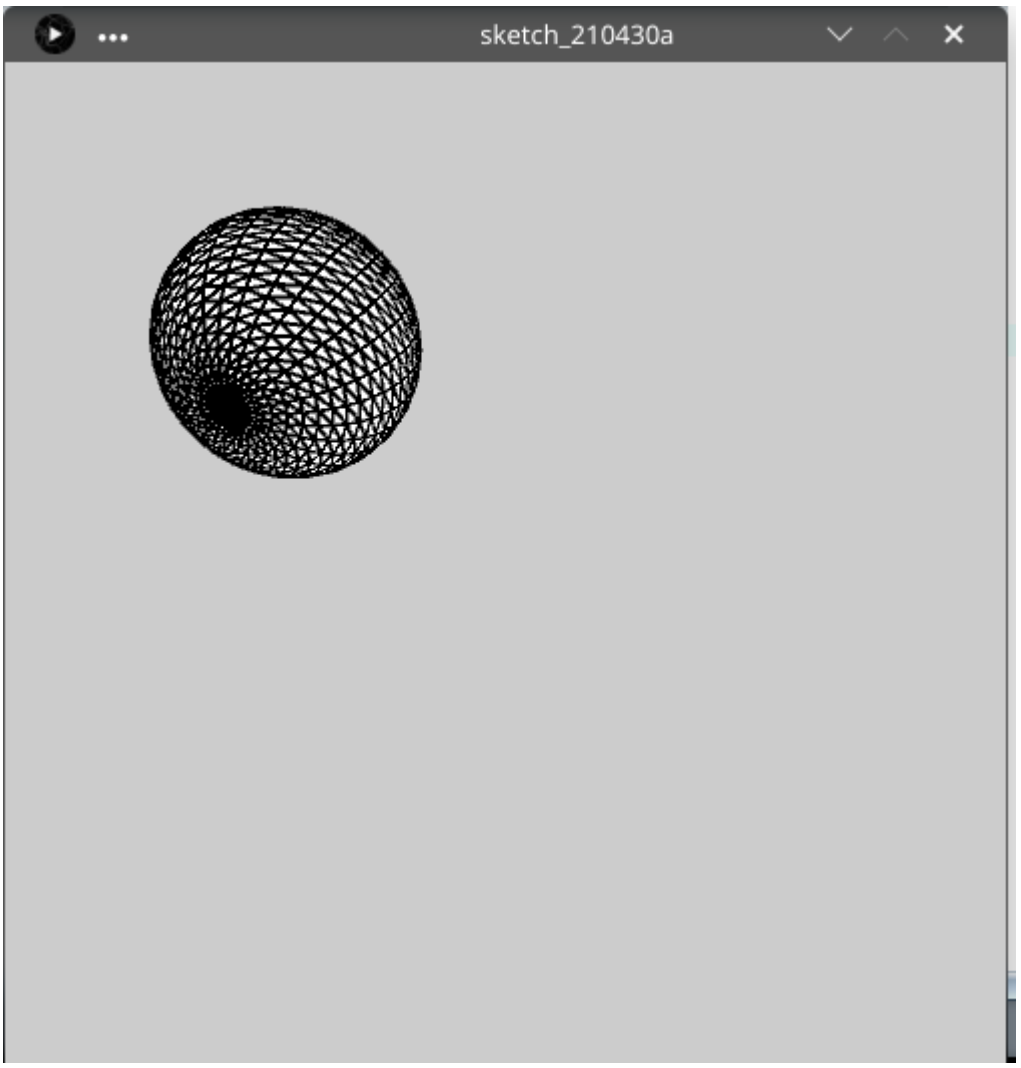
Output:



5. **Sphere**

```
void setup () {
  size(500,500,P3D);
  noLoop();
}
void draw(){
 translate(150,150,30);
  rotateY(PI/4);
 rotateX(PI/6);
 rotateZ(PI/4);
 scale(2);
 sphere(30);
}
```

Output:


sketch_210430a