

# Arrays

int

float

boolean

color

char

String

int[]

float[]

boolean[]

color[]

char[]

String[]

fibonacci      1, 1, 2, 3, 5, 8, 13, 21

```
int[] fibonacci    1, 1, 2, 3, 5, 8, 13, 21
```

```
int[] fibonacci = { 1, 1, 2, 3, 5, 8, 13, 21 };
```

# int[]

Stores a list of integers

```
int[] fibonacci = { 1, 1, 2, 3, 5, 8, 13, 21 };
```

Or:

```
int[] fibonacci = new int[8]  
fibonacci[0] = 1;  
fibonacci[1] = 1;  
fibonacci[2] = 2;  
fibonacci[3] = 3;  
fibonacci[4] = 5;  
fibonacci[5] = 8;  
fibonacci[6] = 13;  
fibonacci[7] = 21;
```

# String[]

Stores a list of strings

```
String[] participants = {  
    "Ties",  
    "Elise",  
    "Michelle",  
    "Dex",  
    "Thembi",  
    "Freek",  
    "Deborah",  
    "Yamil",  
    "Jolie"  
};
```

Or:

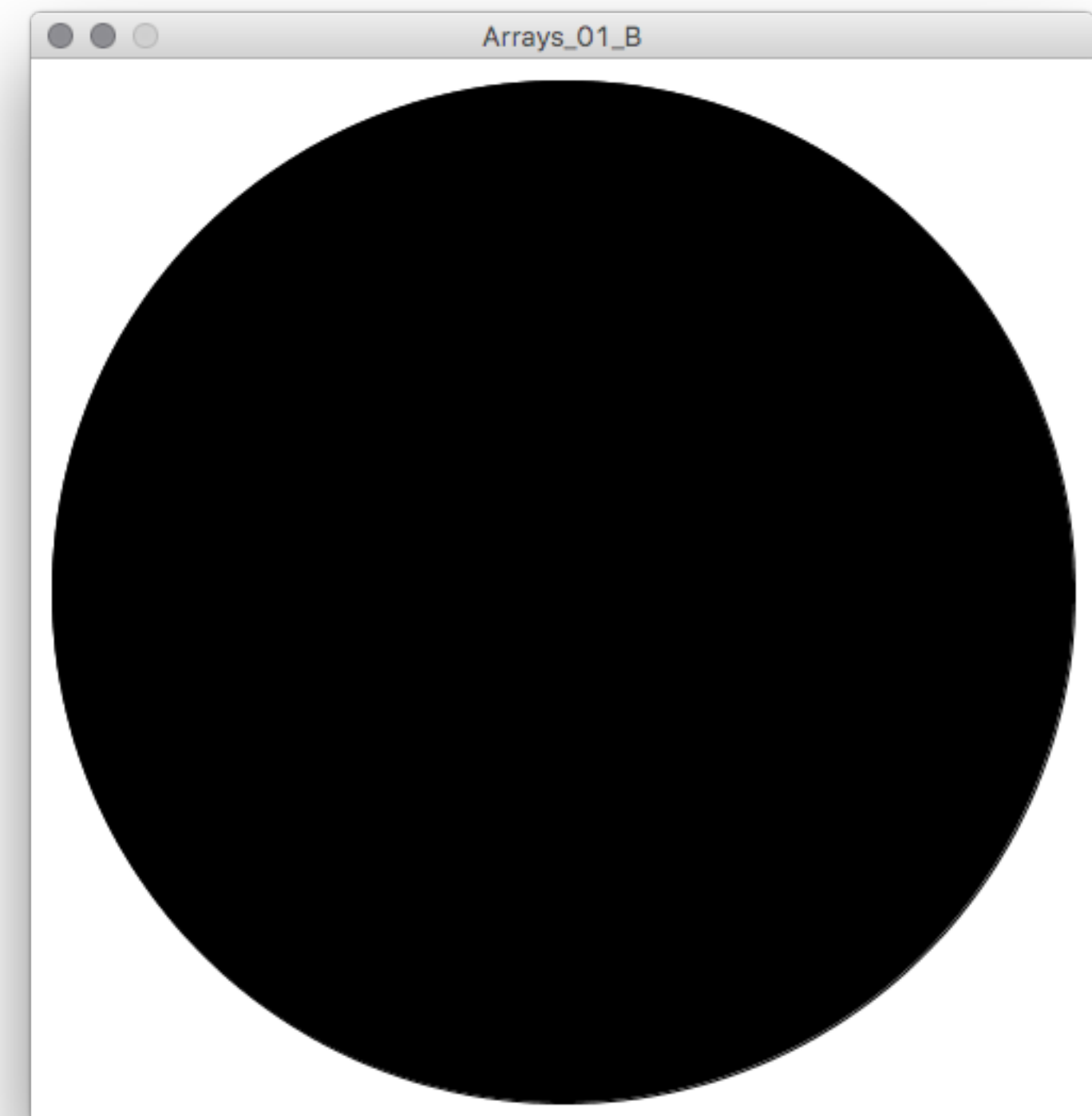
```
String[] participants = new String[9];  
participants[0] = "Ties";  
participants[1] = "Elise";  
participants[2] = "Michelle";  
participants[3] = "Dex";  
participants[4] = "Thembi";  
participants[5] = "Freek";  
participants[6] = "Deborah";  
participants[7] = "Yamil";  
participants[8] = "Jolie";
```



Arrays\_01\_A

```
1 void setup() {  
2   size(500, 500);  
3   background(255);  
4 }  
5  
6 void draw() {  
7 }  
8  
9 void keyPressed() {  
10  background(255);  
11  fill(0);  
12  ellipse(width/2, height/2, 480, 480);  
13 }  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36
```

Console Errors

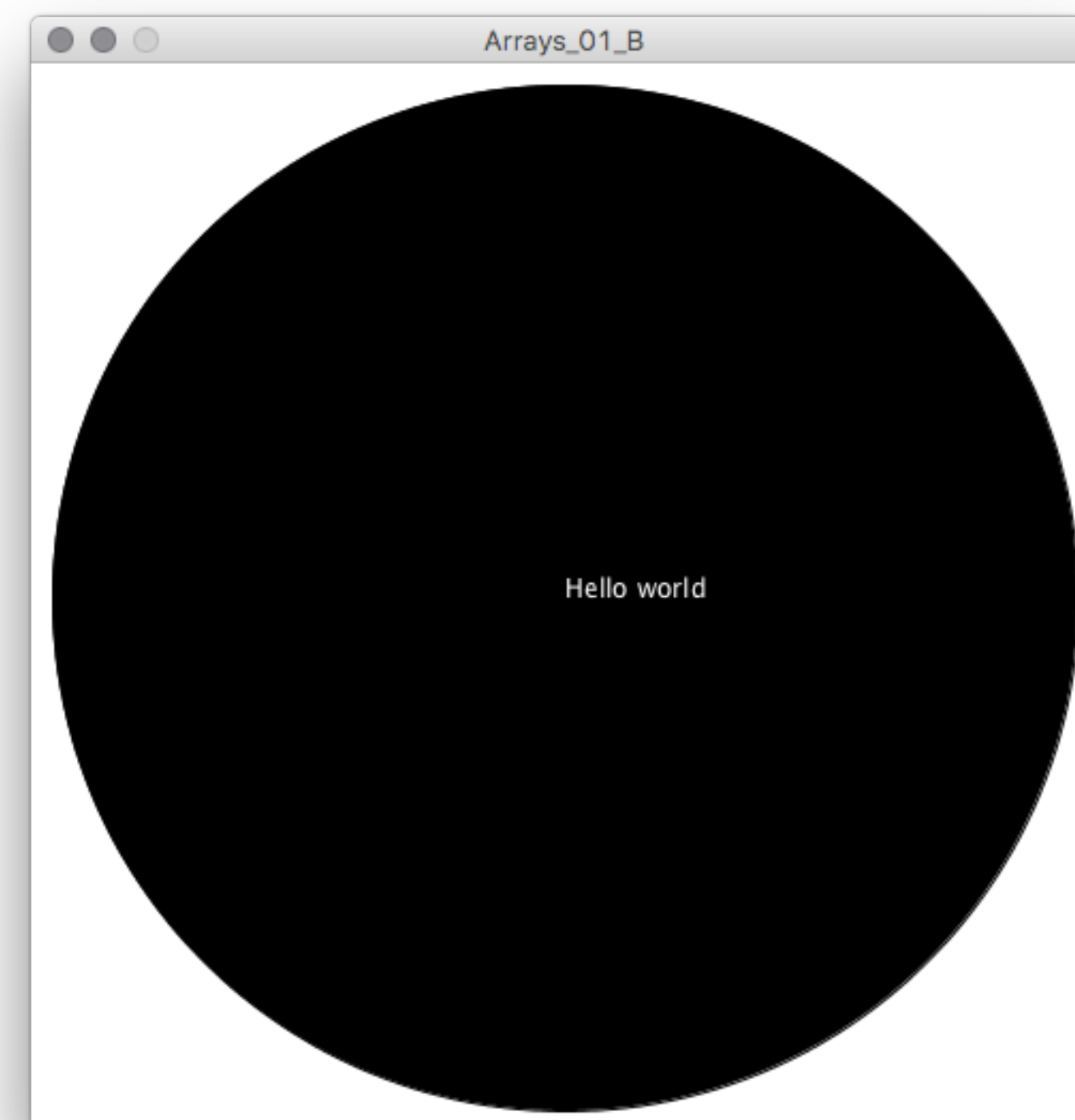


```
Arrays_01_B
1 void setup() {
2   size(500, 500);
3   background(255);
4 }
5
6 void draw() {
7 }
8
9 void keyPressed() {
10  background(255);
11  fill(0);
12  ellipse(width/2, height/2, 480, 480);
13
14  fill(255);
15  text("Hello world", width/2, height/2);
16 }
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
```

Auto Format finished.

Console

Errors

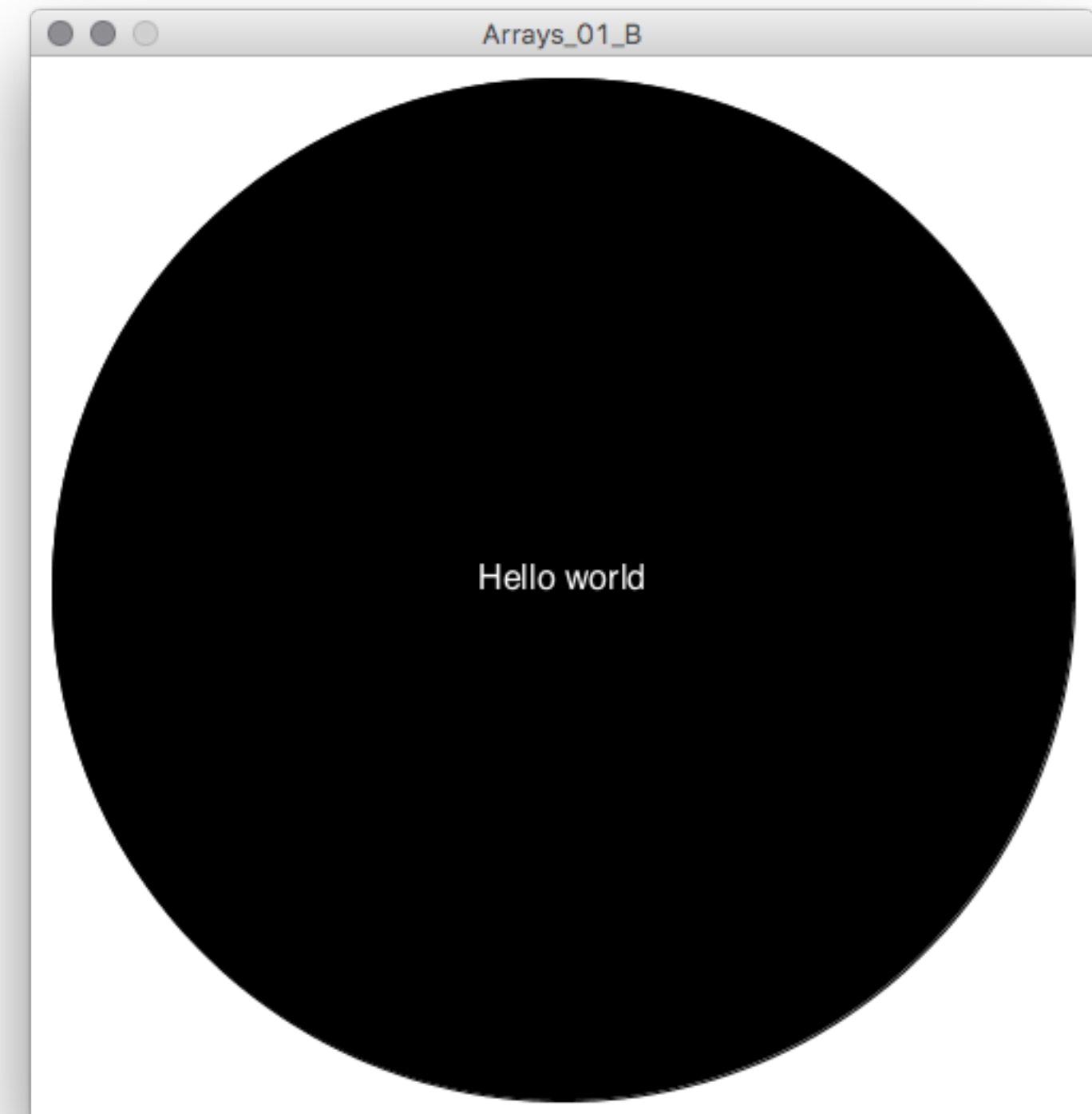


```
1 PFont myFont;  
2  
3 void setup() {  
4   size(500, 500);  
5   background(255);  
6 }  
7  
8 void draw() {  
9 }  
10  
11 void keyPressed() {  
12   background(255);  
13   fill(0);  
14   ellipse(width/2, height/2, 480, 480);  
15  
16   fill(255);  
17   text("Hello world", width/2, height/2);  
18 }  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36
```

```
1 PFont myFont;
2
3 void setup() {
4   size(500, 500);
5   background(255);
6
7   myFont = createFont("Helvetica", 16);
8 }
9
10 void draw() {
11 }
12
13 void keyPressed() {
14   background(255);
15   fill(0);
16   ellipse(width/2, height/2, 480, 480);
17
18   fill(255);
19   text("Hello world", width/2, height/2);
20 }
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
```

```
1 PFont myFont;
2
3 void setup() {
4   size(500, 500);
5   background(255);
6
7   myFont = createFont("Helvetica", 16);
8   textFont(myFont);
9 }
10
11 void draw() {
12 }
13
14 void keyPressed() {
15   background(255);
16   fill(0);
17   ellipse(width/2, height/2, 480, 480);
18
19   fill(255);
20   text("Hello world", width/2, height/2);
21 }
```

```
1 PFont myFont;
2
3 void setup() {
4   size(500, 500);
5   background(255);
6
7   myFont = createFont("Helvetica", 16);
8   textFont(myFont);
9   textAlign(CENTER);
10 }
11
12 void draw() {
13 }
14
15 void keyPressed() {
16   background(255);
17   fill(0);
18   ellipse(width/2, height/2, 480, 480);
19
20   fill(255);
21   text("Hello world", width/2, height/2);
22 }
```



```
1 PFont myFont;
2 String[] myAnswers;
3
4 void setup() {
5   size(500, 500);
6   background(255);
7
8   myFont = createFont("Helvetica", 16);
9   textFont(myFont);
10  textAlign(CENTER);
11 }
12
13 void draw() {
14 }
15
16 void keyPressed() {
17   background(255);
18   fill(0);
19   ellipse(width/2, height/2, 480, 480);
20
21   fill(255);
22   text("Hello world", width/2, height/2);
23 }
24
25
26
27
28
29
30
31
32
33
34
35
36
```

Done saving.

```
1 PFont myFont;  
2 String[] myAnswers;  
3  
4 void setup() {  
5   size(500, 500);  
6   background(255);  
7  
8   myFont = createFont("Helvetica", 16);  
9   textFont(myFont);  
10  textAlign(CENTER);  
11  
12  myAnswers = new String[3];  
13 }  
14  
15 void draw() {  
16 }  
17  
18 void keyPressed() {  
19   background(255);  
20   fill(0);  
21   ellipse(width/2, height/2, 480, 480);  
22  
23   fill(255);  
24   text("Hello world", width/2, height/2);  
25 }
```

Done saving.



```
1 PFont myFont;  
2 String[] myAnswers;  
3  
4 void setup() {  
5   size(500, 500);  
6   background(255);  
7  
8   myFont = createFont("Helvetica", 16);  
9   textFont(myFont);  
10  textAlign(CENTER);  
11  
12  myAnswers = new String[3];  
13  myAnswers[0] = "Yes";  
14  myAnswers[1] = "No";  
15  myAnswers[2] = "Maybe";  
16 }  
17  
18 void draw() {  
19 }  
20  
21 void keyPressed() {  
22   background(255);  
23   fill(0);  
24   ellipse(width/2, height/2, 480, 480);  
25  
26   fill(255);  
27   text("Hello world", width/2, height/2);  
28 }
```

Done saving.

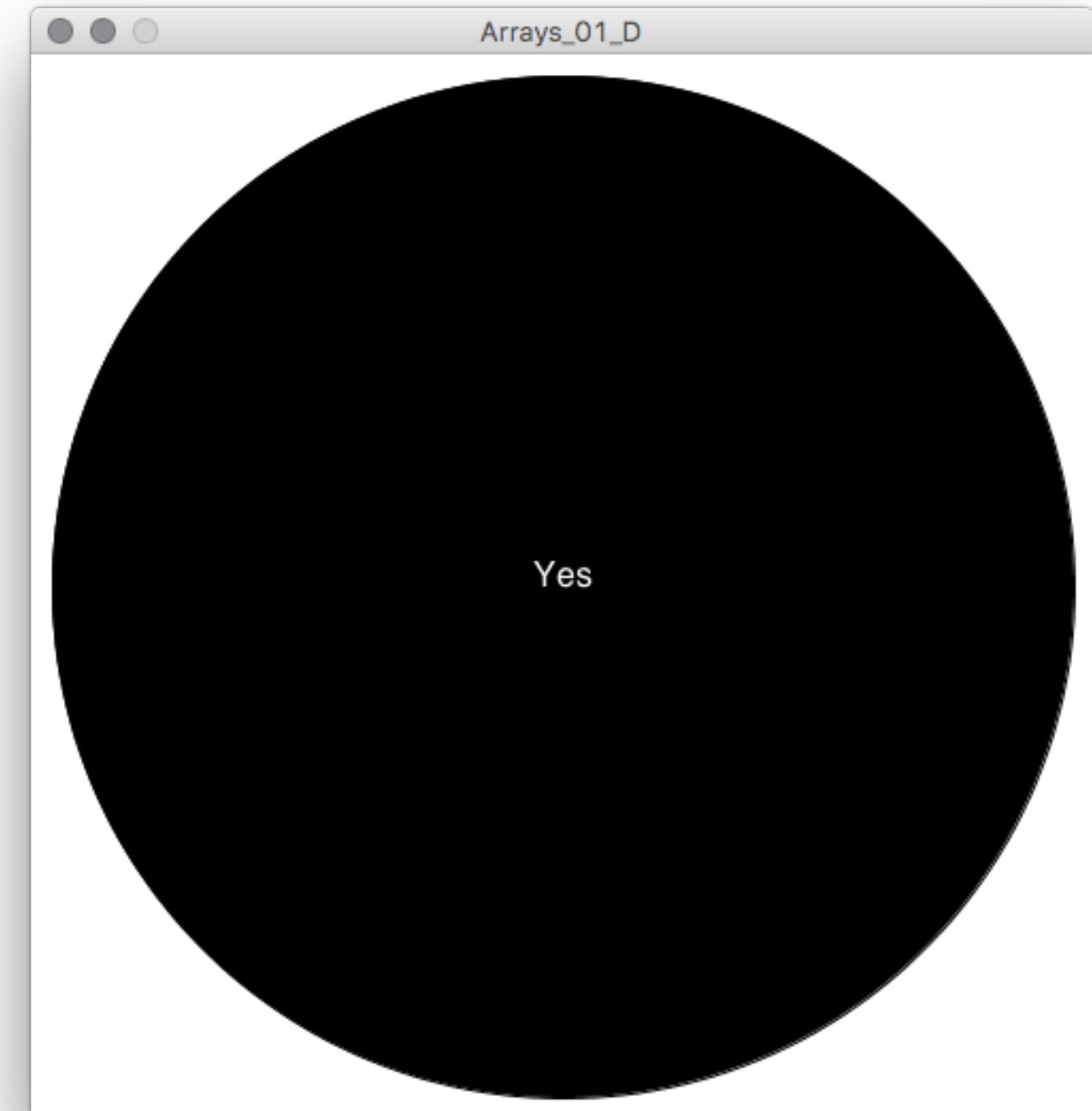
```
1 PFont myFont;  
2 String[] myAnswers;  
3  
4 void setup() {  
5   size(500, 500);  
6   background(255);  
7  
8   myFont = createFont("Helvetica", 16);  
9   textFont(myFont);  
10  textAlign(CENTER);  
11  
12  myAnswers = new String[3];  
13  myAnswers[0] = "Yes";  
14  myAnswers[1] = "No";  
15  myAnswers[2] = "Maybe";  
16  
17  println(myAnswers);  
18 }  
19  
20 void draw() {  
21 }  
22  
23 void keyPressed() {  
24   background(255);  
25   fill(0);  
26   ellipse(width/2, height/2, 480, 480);  
27  
28   fill(255);  
29   text("Hello world", width/2, height/2);  
30 }  
31  
32  
33  
34  
35  
36
```

Done saving.

```
1 PFont myFont;
2 String[] myAnswers;
3
4 void setup() {
5   size(500, 500);
6   background(255);
7
8   myFont = createFont("Helvetica", 16);
9   textFont(myFont);
10  textAlign(CENTER);
11
12  myAnswers = new String[3];
13  myAnswers[0] = "Yes";
14  myAnswers[1] = "No";
15  myAnswers[2] = "Maybe";
16
17  println(myAnswers);
18  println(myAnswers[0]);
19 }
20
21 void draw() {
22 }
23
24 void keyPressed() {
25   background(255);
26   fill(0);
27   ellipse(width/2, height/2, 480, 480);
28
29   fill(255);
30   text("Hello world", width/2, height/2);
31 }
32
33
34
35
36
```

Done saving.

```
1 PFont myFont;
2 String[] myAnswers;
3
4 void setup() {
5   size(500, 500);
6   background(255);
7
8   myFont = createFont("Helvetica", 16);
9   textFont(myFont);
10  textAlign(CENTER);
11
12  myAnswers = new String[3];
13  myAnswers[0] = "Yes";
14  myAnswers[1] = "No";
15  myAnswers[2] = "Maybe";
16
17  println(myAnswers);
18  println(myAnswers[0]);
19 }
20
21 void draw() {
22 }
23
24 void keyPressed() {
25   background(255);
26   fill(0);
27   ellipse(width/2, height/2, 480, 480);
28
29   fill(255);
30   text(myAnswers[0], width/2, height/2);
31 }
```



```
1 PFont myFont;
2 String[] myAnswers;
3
4 void setup() {
5     size(500, 500);
6     background(255);
7
8     myFont = createFont("Helvetica", 16);
9     textFont(myFont);
10    textAlign(CENTER);
11
12    myAnswers = new String[3];
13    myAnswers[0] = "Yes";
14    myAnswers[1] = "No";
15    myAnswers[2] = "Maybe";
16
17    println(myAnswers);
18    println(myAnswers[0]);
19 }
20
21 void draw() {
22 }
23
24 void keyPressed() {
25     background(255);
26     fill(0);
27     ellipse(width/2, height/2, 480, 480);
28
29     int myAnswerNum = int(random(3));
30
31     fill(255);
32     text(myAnswers[0], width/2, height/2);
33 }
34
35
36
```

```
1 PFont myFont;
2 String[] myAnswers;
3
4 void setup() {
5   size(500, 500);
6   background(255);
7
8   myFont = createFont("Helvetica", 16);
9   textFont(myFont);
10  textAlign(CENTER);
11
12  myAnswers = new String[3];
13  myAnswers[0] = "Yes";
14  myAnswers[1] = "No";
15  myAnswers[2] = "Maybe";
16
17  println(myAnswers);
18  println(myAnswers[0]);
19 }
20
21 void draw() {
22 }
23
24 void keyPressed() {
25   background(255);
26   fill(0);
27   ellipse(width/2, height/2, 480, 480);
28
29   int myAnswerNum = int(random(3));
30   println(myAnswerNum);
31
32   fill(255);
33   text(myAnswers[0], width/2, height/2);
34 }
```

2  
2  
1



```
1 PFont myFont;
2 String[] myAnswers;
3
4 void setup() {
5   size(500, 500);
6   background(255);
7
8   myFont = createFont("Helvetica", 16);
9   textFont(myFont);
10  textAlign(CENTER);
11
12  myAnswers = new String[3];
13  myAnswers[0] = "Yes";
14  myAnswers[1] = "No";
15  myAnswers[2] = "Maybe";
16
17  println(myAnswers);
18  println(myAnswers[0]);
19 }
20
21 void draw() {
22 }
23
24 void keyPressed() {
25   background(255);
26   fill(0);
27   ellipse(width/2, height/2, 480, 480);
28
29   int myAnswerNum = int(random(3));
30   println(myAnswerNum);
31
32   fill(255);
33   text(myAnswers[myAnswerNum], width/2, height/2);
34 }
35
36
```



```
1 PFont myFont;
2 String[] myAnswers;
3
4 void setup() {
5     size(500, 500);
6     background(255);
7
8     myFont = createFont("Helvetica", 16);
9     textFont(myFont);
10    textAlign(CENTER);
11
12    myAnswers = new String[3];
13    myAnswers[0] = "Yes";
14    myAnswers[1] = "No";
15    myAnswers[2] = "Maybe";
16    myAnswers[3] = "Doubtful";
17
18    println(myAnswers);
19    println(myAnswers[0]);
20 }
21
22 void draw() {
23 }
24
25 void keyPressed() {
26     background(255);
27     fill(0);
28     ellipse(width/2, height/2, 480, 480);
29
30     int myAnswerNum = int(random(3));
31     println(myAnswerNum);
32
33     fill(255);
34     text(myAnswers[myAnswerNum], width/2, height/2);
35 }
36
```

```
1
1
2
```



```
1 PFont myFont;
2 String[] myAnswers;
3
4 void setup() {
5     size(500, 500);
6     background(255);
7
8     myFont = createFont("Helvetica", 16);
9     textFont(myFont);
10    textAlign(CENTER);
11
12    myAnswers = new String[4];
13    myAnswers[0] = "Yes";
14    myAnswers[1] = "No";
15    myAnswers[2] = "Maybe";
16    myAnswers[3] = "Doubtful";
17
18    println(myAnswers);
19    println(myAnswers[0]);
20 }
21
22 void draw() {
23 }
24
25 void keyPressed() {
26     background(255);
27     fill(0);
28     ellipse(width/2, height/2, 480, 480);
29
30     int myAnswerNum = int(random(3));
31     println(myAnswerNum);
32
33     fill(255);
34     text(myAnswers[myAnswerNum], width/2, height/2);
35 }
36
```

ArrayIndexOutOfBoundsException: 3

```
1 PFont myFont;
2 String[] myAnswers;
3
4 void setup() {
5   size(500, 500);
6   background(255);
7
8   myFont = createFont("Helvetica", 16);
9   textFont(myFont);
10  textAlign(CENTER);
11
12  myAnswers = new String[4];
13  myAnswers[0] = "Yes";
14  myAnswers[1] = "No";
15  myAnswers[2] = "Maybe";
16  myAnswers[3] = "Doubtful";
17
18  println(myAnswers);
19  println(myAnswers[0]);
20 }
21
22 void draw() {
23 }
24
25 void keyPressed() {
26   background(255);
27   fill(0);
28   ellipse(width/2, height/2, 480, 480);
29
30   int myAnswerNum = int(random(3));
31   println(myAnswerNum);
32
33   fill(255);
34   text(myAnswers[myAnswerNum], width/2, height/2);
35 }
36
```

```
1 PFont myFont;
2 String[] myAnswers;
3
4 void setup() {
5   size(500, 500);
6   background(255);
7
8   myFont = createFont("Helvetica", 16);
9   textFont(myFont);
10  textAlign(CENTER);
11
12  myAnswers = new String[4];
13  myAnswers[0] = "Yes";
14  myAnswers[1] = "No";
15  myAnswers[2] = "Maybe";
16  myAnswers[3] = "Doubtful";
17
18  println(myAnswers);
19  println(myAnswers[0]);
20 }
21
22 void draw() {
23 }
24
25 void keyPressed() {
26   background(255);
27   fill(0);
28   ellipse(width/2, height/2, 480, 480);
29
30   int myAnswerNum = int(random(myAnswers.length));
31   println(myAnswerNum);
32
33   fill(255);
34   text(myAnswers[myAnswerNum], width/2, height/2);
35 }
36
```

