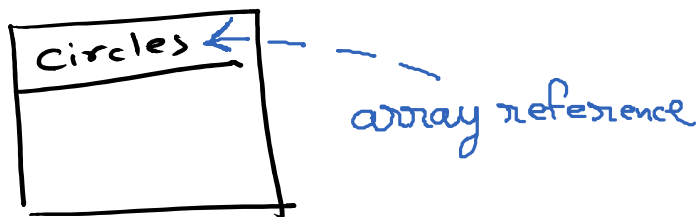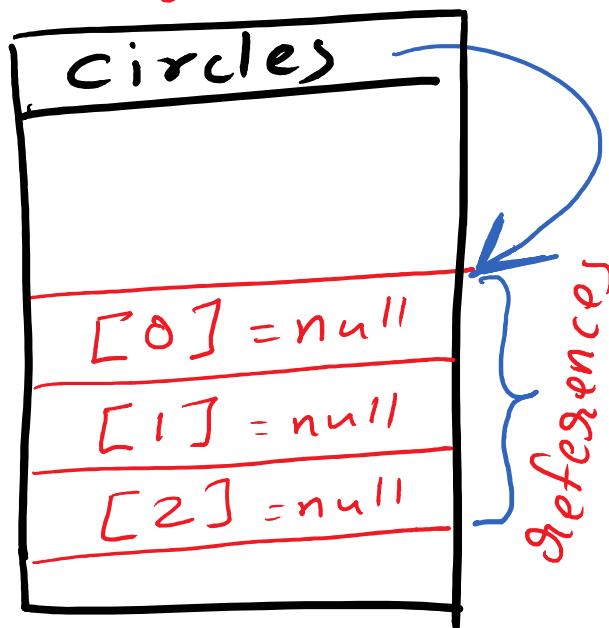```java
public class Circle {
    private int radius;   // assume getters and setters
    public double area() {
        return Math.PI * radius
                       * radius;
    }
}
```

---

Circle [] circles;

circles ← — — — — — array reference

---

Circles = new Circle[3];

instantiated to
an array containing 3 Circle objects

circles

[0] = null
[1] = null
[2] = null

references

⊛ Each of the 3 objects

Each of the 3 objects
is initialized to the
default value for
an object — null

So, we must _instantiate_
each item of the array

```
for (int i=0; i < circles.length; i++)
{
    circles[i] = new Circle();
    circles[i].setRadius(i+1);
}
```

circles

[0]
[1]
[2]

references

radius = 3

radius = 2

storage
for
instance
variables
of each
object

radius = 1