

**Goal:** Append to an empty array based on coordinate properties.

Adding each item to an array individually is *really* repetitive. What if you could create a set of rules for the coordinates to include in your array?

First, start with `allCoordinates`, an **array** of all the coordinates in the puzzle world.

Next, you'll need an empty array to append your coordinates to. And because you're **declaring** an array with no stored values, you'll need to specify the **type** of items it should hold.

Creating an empty array

Use `:` after your variable name to declare its type, then **assign** it an empty array.

```
var newLocations: [Coordinate] = []
```

Finally, **iterate** over `allCoordinates` and check the `column` and `row` **properties** of each coordinate. If the `column` property of a coordinate is greater than 5, **or** its `row` property is less than 4, append it to your empty array. Then place six blocks on each coordinate in the array.

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```
let allCoordinates = world.allPossibleCoordinates
var blockSet: [Coordinate] = []
```

```
for coordinate in allCoordinates {
    // Check for coordinates with a column > 5 OR a row < 4.
    if coordinate.column > 5 || coordinate.row < 4 {
        // Append coordinate to blockSet.
        blockSet.append(coordinate)
    }
}

// For each coordinate in blockSet, place six blocks.
for coordinate in blockSet {
    for i in 1...6 {
        world.place(Block(), at: coordinate)
    }
}
```

