

## Solutions

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Each answer shows the steps, then the **result**.

### 2.1

- `count` is **static**: one copy for the whole class; `seat` has one copy in each object
- `count` is shared and changed by every constructor call; each `seat` is set for its own object

### 2.2

- `seat` is an instance variable, but a **static** method belongs to no object
- so there is no `seat` for it to return

### 2.3

- `System.out.println(Math.max(x, y));`

### 3.1 D

- $3 + 2 = 5$

### 3.2 C

- e.g. `Math.abs(x)`

### 3.3 B

- **static**: one shared copy; **final**: cannot change

### 3.4

(a)

```
private static int next = 1;
private String name;
private int id;
```

- a **static** counter
- `name` and `id` as instance variables

(b)

```
public Player(String n)
{
    name = n;
    id = next;
    next++;
}
```

- sets `name`
- takes `id` from the shared counter
- adds 1 to the counter

(c)

```
public static int playersMade()
{
    return next - 1;
}
```

- `public static int` header
- returns the count: `next - 1` with this counter