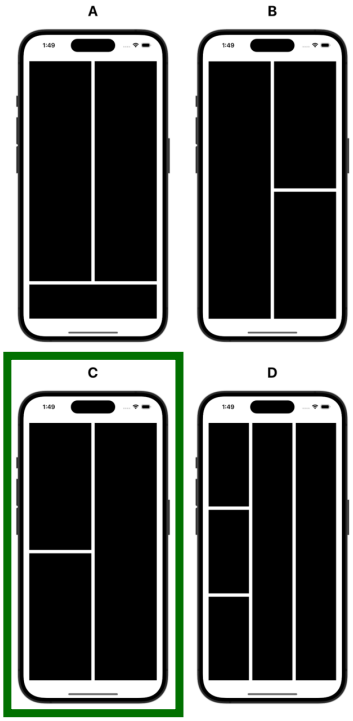
Quiz: User Interface Fundamentals

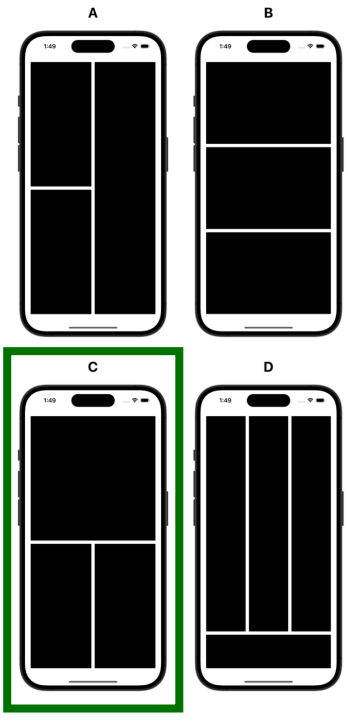
1. The following code will produce which layout shown at right? (circle one)

```
struct ContentView: View {
    var body: some View {
        HStack {
            VStack {
                Rectangle()
                Rectangle()
            }
            Rectangle()
        }
    }
}
```



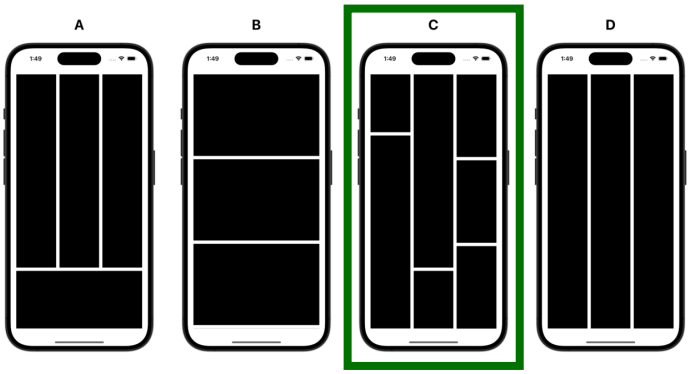
2. The following code will produce which layout shown at right? (circle one)

```
struct ContentView: View {
    var body: some View {
        VStack {
            Rectangle()
            HStack {
                Rectangle()
                Rectangle()
            }
        }
    }
}
```



3. The following code will produce which layout shown below? (circle one)

```
struct ContentView: View {
    var body: some View {
        HStack {
            VStack {
                Rectangle()
                    .containerRelativeFrame(.vertical, count: 3, span: 1, spacing: 0)
                Rectangle()
                    .containerRelativeFrame(.vertical, count: 3, span: 2, spacing: 0)
            }
            VStack {
                Rectangle()
                    .containerRelativeFrame(.vertical, count: 3, span: 2, spacing: 0)
                Rectangle()
                    .containerRelativeFrame(.vertical, count: 3, span: 1, spacing: 0)
            }
            VStack {
                Rectangle()
                Rectangle()
                Rectangle()
            }
        }
    }
}
```



4. A student's layout isn't behaving as expected. Name one simple technique they could use to see the boundaries of views while debugging a SwiftUI layout, and explain how it helps.

Add `.border(...)` to views. It draws an outline around the view's frame so you can see how much space it is taking and where it is positioned.

5. What does `.containerRelativeFrame` do in SwiftUI? In your own words, explain what `count` and `span` mean.

`.containerRelativeFrame` sizes a view relative to the space offered by its container (parent). `count` means "divide the available space into this many equal parts." `span` means "use this many of those parts for this view."