

Fill in the blanks in the code segment below which uses a binary search to search for a key in the array scores.

```
Dim scores() As Integer = {5, 13, 29, 31, 44, 53, 66, 75, 87, 99}
Dim low As Integer = 0
Dim high As Integer = scores.Length() - 1
Dim key As Integer = 44
Dim mid As Integer = high / 2
Dim found As Boolean = False
```

```
While (Not (found) And _____ )
```

```
    If (scores( _____ ) = key) Then
```

```
        found = True
```

```
    Else
```

```
        If (scores(mid) > _____ ) Then
```

```
            _____ = mid - 1
```

```
        ElseIf (key > _____ ) Then
```

```
            _____ = mid + 1
```

```
        End If
```

```
        mid = Math.Round((low + high) / 2)
    End If
```

```
End While
```

```
If ( _____ = True) Then
    lblResult.Text = "Found in position " + Str(mid)
```

```
Else
```

```
    lblResult.Text = "Not Found"
```

```
End If
```