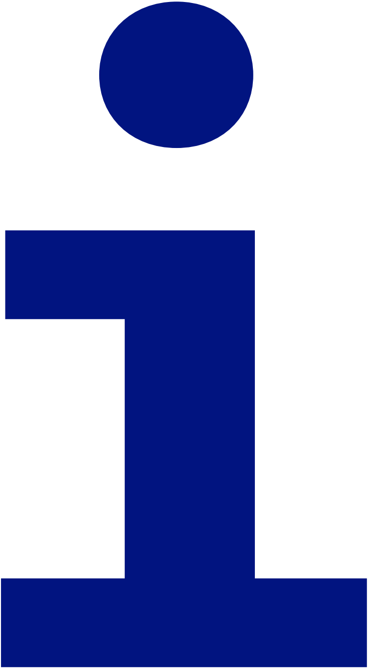
```
fun applyTwice(i: Int, f: (Int) -> Int): Int = f(f(i))
```

Inline functions

compilation

```
fun main() {
    val res = applyTwice(2) {
        it * 2
    }
}
```



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```java
public static void main()
{
    int i = 2;
    int it = i * 2;
    int res = it * 2;
}
```

* pseudo-code that describes the worst case scenario, the compiler might do some extra optimizations where possible

inline

Inline functions

compilation

```
inline fun applyTwice(i: Int, f: (Int) -> Int): Int = f(f(i))
```

```
fun main() {
    val res = applyTwice(2) {
        it * 2
    }
}
```

→ *

```
public static void main()
{
    int i = 2;
    int it = i * 2;
    int res = it * 2;
}
```

* pseudo-code that describes the worst case scenario, the compiler might do some extra optimizations where possible

Could a recursive function be inline?