

# Lambda Expressions

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# Lambda Expressions

From Java version 8, lambda expressions allow code to be passed as a parameter, just like data.

- Particularly useful for event handling; can pass *behavior* as an argument ('do *this* when x happens').
- Syntax
  - Comma-separated formal parameters (`x`)
  - Arrow (`->`)
  - Body (either single expression or statement block, which may contain return)

```
x -> x > 100    or    x -> { ... return true; }
```

## Functional Interfaces

A lambda expression implements a *functional interface*: an interface which only defines a single method.

Commonly-used functional interfaces are defined in package `java.util.function`, e.g.

```
public interface IntPredicate {  
    boolean test(int value);  
}
```

```
public interface DoubleSupplier {  
    double getAsDouble();  
}
```