## Java 8 Method References

**Types of Method Reference**

There are four types of method reference, the table below summarizes this.

| **Type** | **Example** | **Syntax** |
| --- | --- | --- |
| 1. Reference to a static method | ContainingClass::staticMethodName | Class::staticMethodName |
| 2. Reference to a constructor | ClassName::new | ClassName::new |
| 3. Reference to an instance method of an arbitrary object of a particular type | ContainingType::methodName | Class::instanceMethodName |
| 4. Reference to an instance method of a particular object | containingObject::instanceMethodName | object::instanceMethodName |

1.

|  |  |
| --- | --- |
| **Lambda Form** | List primeNumbers = ReferenceToStaticMethod.testPredicate(numbers, a > ReferenceToStaticMethod.isPrime(a)); |
| **Method Reference** | List primeNumbers = ReferenceToStaticMethod.testPredicate(numbers, ReferenceToStaticMethod::isPrime); |

2.

|  |  |
| --- | --- |
| **Lambda Form** | List squaredNumbers = ReferenceToConstructor.findSquareRoot(numbers, x > new Double(x)); |
| **Method Reference** | List squaredNumbers= ReferenceToConstructor.findSquareRoot(numbers,Double::new); |

3.

|  |  |
| --- | --- |
| **Lambda Form** | List allAges = ReferenceToInstanceMethodAOPT.listAllAges(persons, x > x.getAge()); |
| **Method Reference** | List allAges = ReferenceToInstanceMethodAOPT.listAllAges(persons, Person::getAge); |

4.

|  |  |
| --- | --- |
| **Lambda Form** | ReferenceToInstanceMethodOAPO.printNames(names, x > System.out.println(x)); |
| **Method Reference** | ReferenceToInstanceMethodOAPO.printNames(names,System.out::println); |