1. Short answer
   1. **Name the differences between imperative and functional programming**
      * + In functional way, programs are declarative, focus on “what we want” rather than imperative (“how to ”)
        + In functional way, make code more self documenting which means the sequence of function calls mirrors precisely the requirements where in imperative way, code commits to a particular sequence of steps
        + In functional way, functions have referenctial transpanrency – two calls to the same method are guaranteed to return the same result, do not use variables outside the method, where in imperative way codes relies on shared variables and may not be thread safe
        + In functional way, function do not change the state of their enclosing object(no side effects)
        + In functional way, function are first-class citizens means using function as the same way objects are used in OO language, can pass as arguments to other function and return value of the function
   2. **Explain the meaning of declarative programming. Give an example.**
      * + programs are declarative, means focus on “what we want” rather than imperative (“how”)

e.g.

int[] values = {3, 10, 6, 1, 4, 8, 2, 5, 9, 7};

IntStream.of(values)

.forEach(value -> System.out.printf("%d ", value));

* 1. **Name the benefits of including functional style programming in Java**
     + - make code more self documenting which means the sequence of function calls mirrors precisely the requirements
       - functions have referenctial transpanrency – two calls to the same method are guaranteed to return the same result, do not use variables outside the method
       - function do not change the state of their enclosing object(no side effects)
       - function are first-class citizens means using function as the same way objects are used in OO language, can pass as arguments to other function and return value of the function