

## Lab 3 – Exercise 4

### How Many Real Roots?

GIVENS : *(none)*

RESULT : *(none)*

INTERMEDIATES : a, b, c

*(the coefficients of  $ax^2+bx+c = 0$ )*

numberRoots

*(the number of real roots for the quadratic equation)*

HEADER : main()

BODY :

```
printLine("Give the values of the coefficients a, b, and c.")
```

```
a ← readReal()
```

```
b ← readReal ()
```

```
c ← readReal ()
```

```
numberRoots ← howManyRoots(a, b, c)
```

```
printLine("The number of real roots for the equation is ", numberRoots)
```

GIVENS : a, b, c

*(coefficients of the quadratic equation)*

RESULTS : nbrR

*(number of real roots in the equation)*

INTERMEDIATE : discriminant *(calculated with the coefficients)*

HEADER : nbrR ← howManyRoots(a, b, c)

BODY :

