

Lab 2 – Exercise 5

The Distance between 2 Points

GIVENS : *(none)*

RESULT : *(none)*

INTERMEDIATES : paX, paY *(Coordinates of point A)*
 pbX, pbY *(Coordinates of point B)*
 theDistance *(The distance between the 2 points)*

HEADER : : main()

BODY :

```
printLine("Enter the coordinates of 2 points.")
print("Point A, coord x = ")
paX ← readReal()
Affiche ("Point A, coord y = ")
paY ← readReal ()
Affiche ("Point B, coord x = ")
pbX ← readReal ()
Affiche ("Point B, coord y = ")
pbY ← readReal ()
theDistance ← calculateDistance(paX, paY, pbX, pbY)
printLine("The distance between the two points is ", theDistance)
```

GIVENS : xA, yA *(Coordinates of point A)*

 xB, yB *(Coordinates of point B)*

INTERMEDIATES : distance *(the distance between the 2 points)*

HEADER : distance ← calculateDistance(xA, yA, xB, yB)

BODY :

$$\text{distance} \leftarrow \sqrt{(xA - xB)^2 + (yA - yB)^2}$$