

2025 sujet 48

Exercice 1

```
def recherche(tab, n):  
    occ = None  
    for i in range(len(tab)):  
        if tab[i] == n:  
            occ = i  
    return occ
```

Exercice 2

```
def distance_carre(point1, point2):  
    """ Calcule et renvoie la distance au carre entre  
    deux points. """  
    return (point1[0] - point2[0])**2 + (point1[1] - point2[1])**2  
  
def point_le_plus_proche(depart, tab):  
    """ Renvoie les coordonnées du premier point du tableau tab se  
    trouvant à la plus courte distance du point depart. """  
    min_point = tab[0]  
    min_dist = distance_carre(depart, tab[0])  
    for i in range(1, len(tab)):  
        if distance_carre(tab[i], depart) < min_dist:  
            min_point = tab[i]  
            min_dist = distance_carre(tab[i], depart)  
    return min_point
```