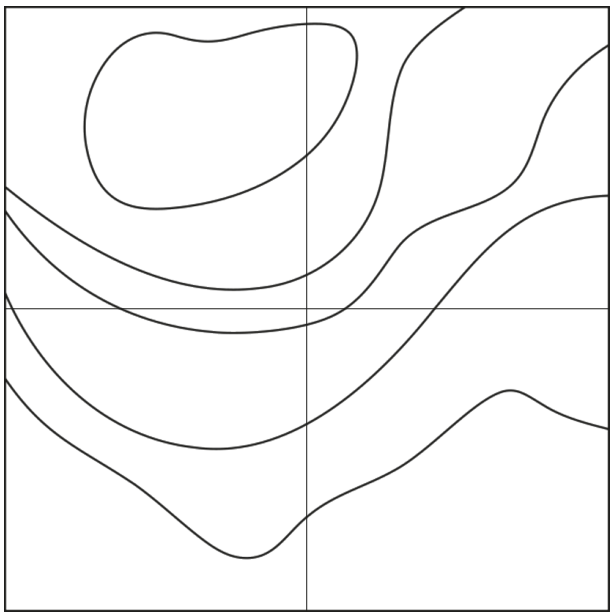
# des matrices en couleurs

## Activité 1

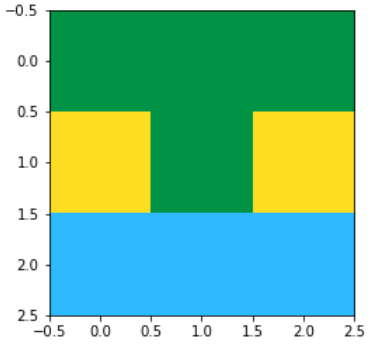
Représentation d'un relevé cartographique



Programmation Python

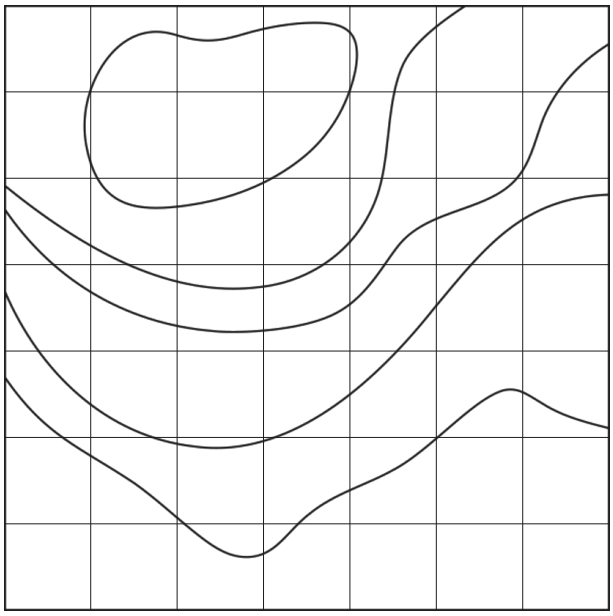
```
1 import matplotlib.pyplot as plt
2
3 Z = [[4, 4, 3], [1, 3, 1], [0, 0, 0]]
4
5 my_colors = plt.cm.colors.ListedColormap(['#2ebaff', '#fcdd21', '#8cc63f','#009245' ])
6 plt.imshow(Z, cmap=my_colors, interpolation='nearest')
7 plt.savefig('complex_activity_1.png')
8 plt.show()
```

Visualisation du relief selon relevés réalisés (Matrice 3 × 3)



# Activité 2

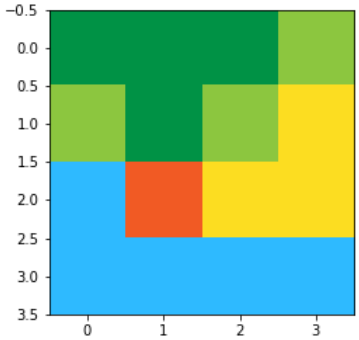
Représentation d'un relevé cartographique



Programmation Python

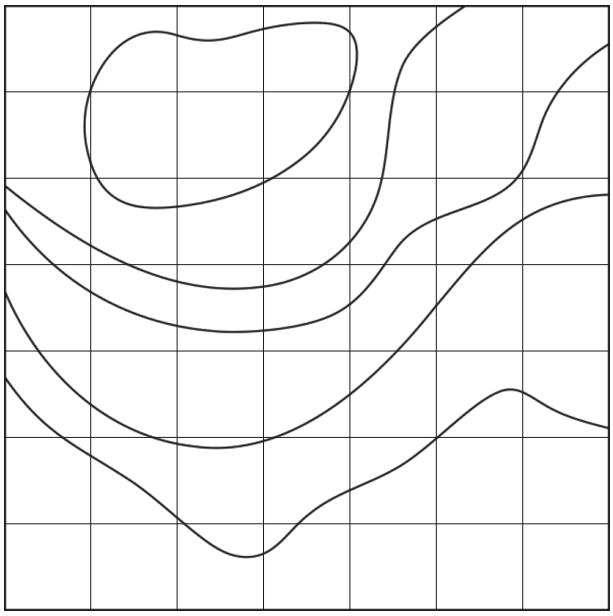
```python
import matplotlib.pyplot as plt

Z = [[4, 4, 4, 3], [3, 4, 3, 1], [0, 2, 1, 1], [0, 0, 0, 0]]

my_colors = plt.cm.colors.ListedColormap(['#2ebaff', '#fcdd21', '#f15a24', '#8cc63f', '#009245'])
plt.imshow(Z, cmap=my_colors, interpolation='nearest')
plt.savefig('complex_activity_2.png')
plt.show()
```

Visualisation du relief selon relevés réalisés (Matrice 4 × 4)



# Activité 3

Représentation d'un relevé cartographique



Programmation Python

```
1 import matplotlib.pyplot as plt
2
3 Z = [[4, 4, 4, 4, 4, 4, 3, 3], [4, 5, 5, 5, 5, 3, 3, 2],\
4     [4, 4, 5, 5, 4, 3, 2, 2], [2, 3, 4, 4, 3, 2, 1, 1],\
5     [1, 2, 2, 2, 2, 1, 1, 1],[0, 1, 2, 2, 1, 1, 0, 0],\
6     [0, 0, 0, 1, 0, 0, 0, 0], [0, 0, 0, 0, 0, 0, 0, 0]]
7 colors = ['#2ebaff', '#fcdd21', '#f15a24', '#8cc63f', '#009245', '#9e005d']
8 my_color_map = plt.cm.colors.ListedColormap(colors)
9 plt.imshow(Z, cmap=my_color_map, interpolation='nearest')
10 plt.savefig('complex_activity_3.png')
11 plt.show()
```

Visualisation du relief selon relevés réalisés (Matrice 8 × 8)