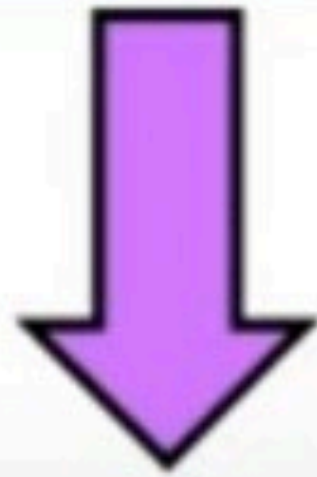


Image Segmentation Algorithms are based on:

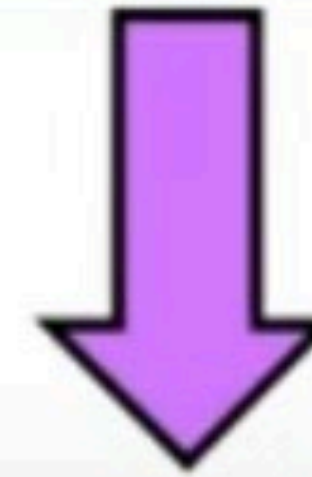
```
graph TD; A[Image Segmentation Algorithms are based on:] --> B[Similarity Principle (Region Approach)]; A --> C[Discontinuity Principle (Boundary Approach)]; B --> D[Objective is to group pixels based on common property to extract a coherent region]; C --> E[Objective is to extract regions that differ in properties like intensity, color, texture etc.]
```

✓ **Similarity Principle**
(Region Approach)



Objective is to group pixels based on common property to extract a coherent region

✓ **Discontinuity Principle**
(Boundary Approach)



Objective is to extract regions that differ in properties like intensity, color, texture etc. ✓

Definition of Image Segmentation

An image can be portioned into many regions $R_1, R_2, R_3 \dots R_n$

$R \equiv$

R_1	R_{21}	R_{22}
	R_{23}	R_{24}
R_3	R_4	