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1 4. Choose a random air balloon in your binary image, change the pixels inside to white. Explain
  how you did that.
2 Ans:
3     1. Start with binary image contains edges.
4     2. Using 'label' function to label all connected components.
5     3. Find the number of connected components and randomly pick one.
6     4. Find all pixels that have that the component's label.
7     5. Find the center by averaging the x and y independently.
8     6. Start from the center and use 'flood_fill' function to fill every pixel with the
  component's label until you reach the edge.
9
10 6. Move the balloon 20 pixels in any direction of a 45-degree angle. Explain how you did that
11 Ans:
12     1. Start with binary image contains edges.
13     2. Using 'label' function to label all connected components.
14     3. Find the number of connected components and randomly pick one.
15     4. Find all pixels that have that the component's label.
16     5. Find the center by averaging the x and y independently.
17     6. Start from the center and use 'flood_fill' function to fill every pixel with the
  component's label until you reach the edge.
18     7. Find all pixels that have the component's label.
19     8. Translate all pixels in a random direction by 20 pixels.
20     9. Rotate all pixels by 45-degree in the clockwise direction with respect to the center of
  the balloon using Pythagorean Identities.
21     Formula:
22         newX = cos(θ)*(x-cx) - sin(θ)*(y-cy) + cx
23         newY = sin(θ)*(x-cx) + cos(θ)*(y-cy) + cy
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