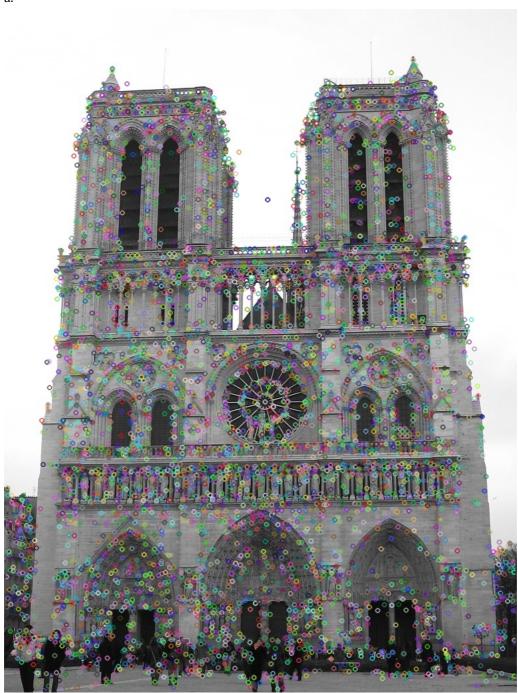
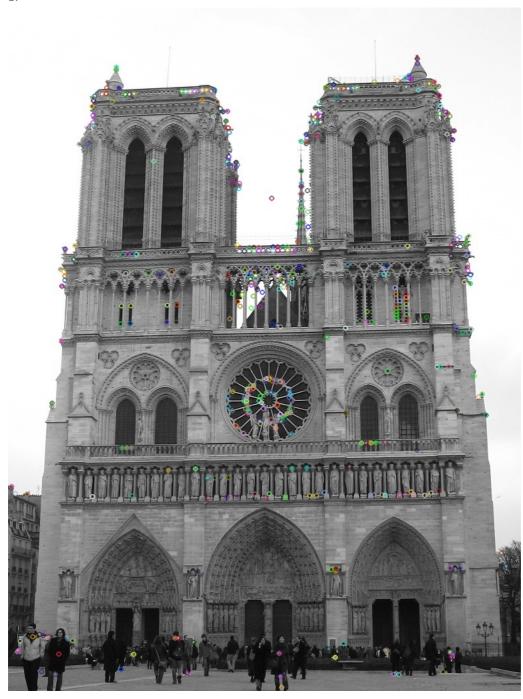
Task1

a.



b.



Task2

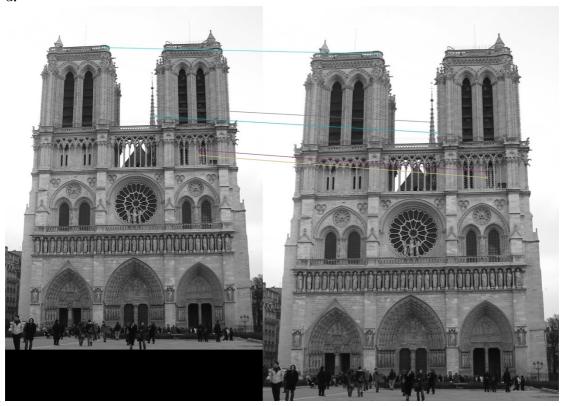
b.



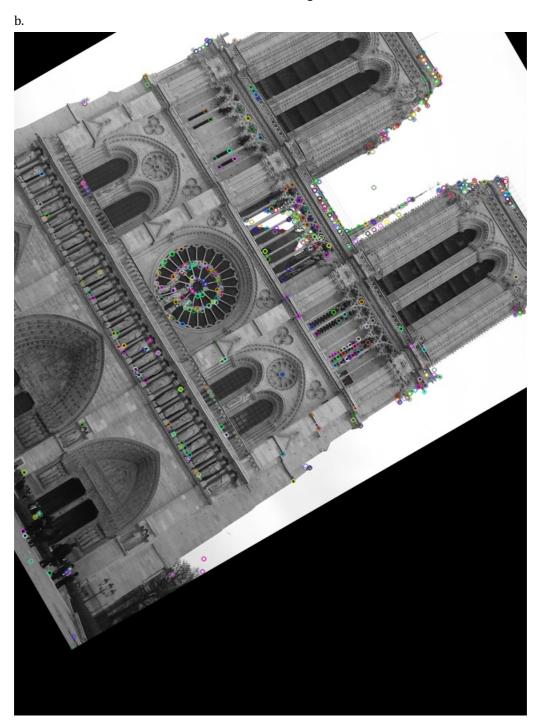
C

The keypoints of the scaled image roughly the same as those of the original image, this means that the scale of image will not affect the keypoint extract in a suitable range of scale. So, SIFT has scale invariance.

d.



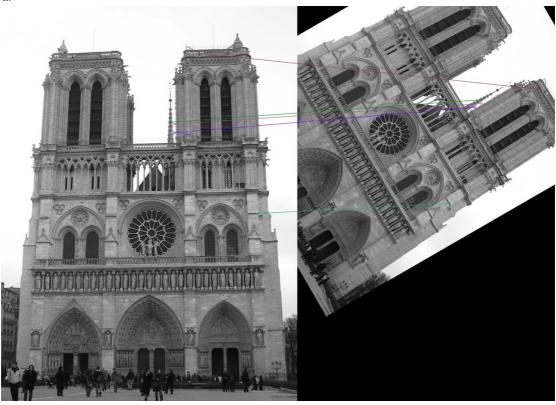
Task3



c.

The keypoints of the rotated image roughly the same as those of the original image, this means that the rotation of image will not affect the keypoint extract. So, SIFT has rotation invariance.

d.



4. Background image B and output image $\boldsymbol{0}$

