**Report:**

1. Is there a trade-off between image quality and degree of compression? What would be a good value of K for each of the two images?

* There **i**s a trade-off between quality of image and compression degree.
* If the image is highly compressed then its quality will decrease, as it will displays only limited no of colours.
* During compression pixels with close colours will get similar colour. Thus, this reduces the number of colours and thereby decreases image quality.
* Inversely, if k value gets increased, more colours can be shown in image which increases image quality but size of the image will also increase.
* So, by this we can say that there is a trade-off between quality of image and degree of compression.

For both images K value can be 20 which around gives about 50% size compression and clarity of image is good for 30 iterations.