Task description:

Using 3 images : GRAY.JPG (gray scale image with high resolution), RGB\_half.JPG (rotated RGB image with lower resolution), RGB\_quater.JPG(rotated RGB image with the lower resolution than other RGB) reconstruct RGB image of same resolution which has GRAY.JPG

Link to the data:

What you need to do:

1. Reconstruct RGB from 3 images (2 results – from pair GRAY.JPG and RG\_half.JPG and – from pair GRAY.JPG and RGB\_quater.JPG)

2. Compare quality of reconstruction visually

Comment:

You could use any algorithms for pan sharpening and for aligning images coordinate systems.

[Pan-sharping overview](https://desktop.arcgis.com/ru/arcmap/10.3/manage-data/raster-and-images/fundamentals-of-panchromatic-sharpening.htm)

But for the start point you could see on materials (openCV samples and some links about image color spaces)