Tasks

1. Take a look at the following website & read up on the different file formats

<https://1stwebdesigner.com/image-file-types/>

2. Download this bitmap image to your Pictures directory (for later on)

<https://1stwebdesigner.com/wp-content/uploads/2011/03/bmp-sample.bmp>

3. Windows “.bmp” files are bitmaps – they are a bit for bit copy of the screen and are not compressed. That makes it very easy to calculate their size. This image has 24-bit colour depth. Multiply 24-bits as bytes (i.e. 3 bytes) by the image’s width and height (720 x 514) and you should get 1,110,240 bytes (in decimal, 1.059 Mb in binary). Actually, your estimate might be a few bytes short (look at the properties); why?

4. Open the image in “Paint”. Now save it as a JPEG image. How big is the JPEG image? It should be considerable smaller as the JPEG image is compressed, whereas the BMP is uncompressed.

5. View the original and the compressed image side by side (using Photos). Can you actually see any degradation in quality?

Now carry out some research into “lossy” and “lossless” compression.

6. Re-load the original bitmap image in Paint. Save it as an 8-bit colour bitmap (Save as > Other Formats). Open this (using Photos) & try to enlarge it. Why is the quality so bad?

7. Open this 8-bit colour file in “Paint” and convert it to 24-bit colour. Why does this give no improvement in quality?