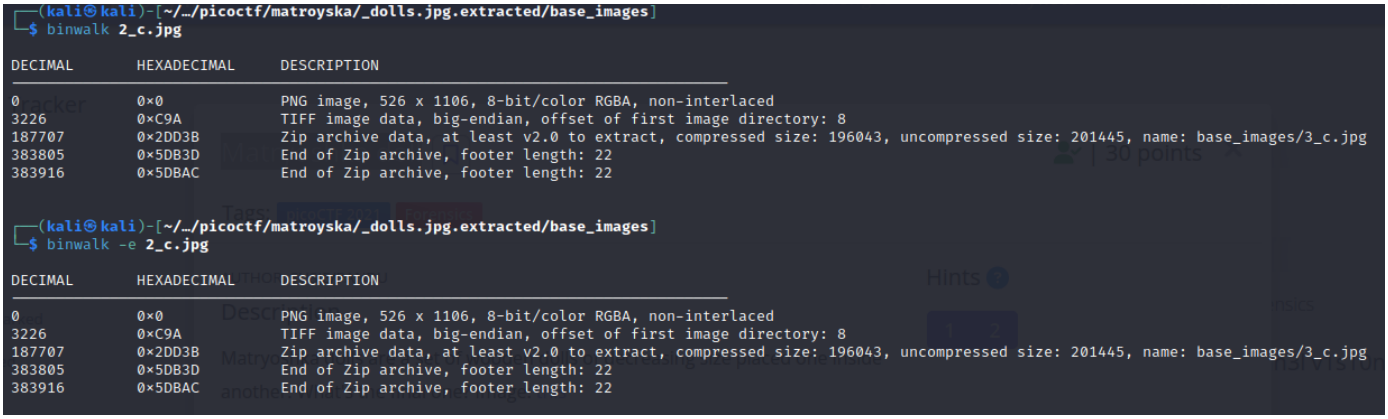
Matryoshka doll



```
┌──(kali㉿kali)-[~/…/picoctf/matroyska/_dolls.jpg.extracted/base_images]
└─$ binwalk 2_c.jpg

DECIMAL       HEXADECIMAL     DESCRIPTION
--------------------------------------------------------------------------------
0             0x0             PNG image, 526 x 1106, 8-bit/color RGBA, non-interlaced
3226          0xC9A           TIFF image data, big-endian, offset of first image directory: 8
187707        0x2DD3B         Zip archive data, at least v2.0 to extract, compressed size: 196043, uncompressed size: 201445, name: base_images/3_c.jpg
383805        0x5DB3D         End of Zip archive, footer length: 22
383916        0x5DBAC         End of Zip archive, footer length: 22


┌──(kali㉿kali)-[~/…/picoctf/matroyska/_dolls.jpg.extracted/base_images]
└─$ binwalk -e 2_c.jpg

DECIMAL       HEXADECIMAL     DESCRIPTION
--------------------------------------------------------------------------------
0             0x0             PNG image, 526 x 1106, 8-bit/color RGBA, non-interlaced
3226          0xC9A           TIFF image data, big-endian, offset of first image directory: 8
187707        0x2DD3B         Zip archive data, at least v2.0 to extract, compressed size: 196043, uncompressed size: 201445, name: base_images/3_c.jpg
383805        0x5DB3D         End of Zip archive, footer length: 22
383916        0x5DBAC         End of Zip archive, footer length: 22
```

> We can scan for embedded files with the binwalk command.
> If there are embedded files, they can be extracted with binwalk -e.

```
┌──(kali㉿kali)-[~/…/_2_c.jpg.extracted/base_images/_3_c.jpg.extracted/base_images]
└─$ binwalk -e 4_c.jpg

DECIMAL       HEXADECIMAL     DESCRIPTION
--------------------------------------------------------------------------------
0             0x0             PNG image, 320 x 768, 8-bit/color RGBA, non-interlaced
3226          0xC9A           TIFF image data, big-endian, offset of first image directory: 8
79578         0x136DA         Zip archive data, at least v2.0 to extract, compressed size: 65, uncompressed size: 81, name: flag.txt
79787         0x137AB         End of Zip archive, footer length: 22


┌──(kali㉿kali)-[~/…/_2_c.jpg.extracted/base_images/_3_c.jpg.extracted/base_images]
└─$ ls
4_c.jpg  _4_c.jpg.extracted

┌──(kali㉿kali)-[~/…/_2_c.jpg.extracted/base_images/_3_c.jpg.extracted/base_images]
└─$ cd _4_c.jpg.extracted

┌──(kali㉿kali)-[~/…/base_images/_3_c.jpg.extracted/base_images/_4_c.jpg.extracted]
└─$ ls
136DA.zip  flag.txt

┌──(kali㉿kali)-[~/…/base_images/_3_c.jpg.extracted/base_images/_4_c.jpg.extracted]
└─$ cat flag.txt
picoCTF{4f11048e83ffc7d342a15bd2309b47de}
```

> At the fifth level in, there was a flag.txt file.

This could also be done in one command, using the binwalk -M -e flags.
-M specifies binwalk to be recursive, so it would go all the way to the lowest level automatically.