The key used to decrypt assistance.b64 was “iceman”.
The hint from assistance.b64 was “The key begins with the letter p.”
The key used to decrypt view-me.enc was “picasso”.

Process for Challenge 3:

- Started by decoding assistance.b64 into a temp file using the base64 command in the linux terminal.
- Set the threshold for my Rijndael program to 0.1 and commented out the exit condition so it would print all candidates at that threshold or higher.
- Ran the decoded temp file through the Rijndael program and put the output with the keys into a second temp file.
- Scrolled through the second temp file until I found an ascii picture of a bulldog and its key.
- Searched for the team “bulldog” in the dictionaty.txt file that came in the zip file for the challenge and found that it existed.
- Ran the view-me.enc file through Rijndael set to match against an RGB value regular expression and the key set to “bulldog”.
- That didn’t seem to work so I tried it with “tech” as the key, and that didn’t work either.
- Realized the regular expression I was using to check for values in the form of RGB tuples was wrong so I fixed it and ran it again with no key.
- This found no matches. Went back and checked the bulldog image, and realized that there was text in it saying that the key began with the letter p.
- Ran view-me.enc through Rijndael again with the corrected rgb pattern-matching and filtering only for keys that began with the letters “p” or “P”.
- This printed nothing. So I changed the regex so that it didn’t check for parentheses and got the RGB key for view-me.png.
- Ran view-me.png through the XOR program and it threw an error because of a padding “#” at the very end of the key.
- Removed the “#” from the key, ran it again, and decrypted the image successfully.