If you assume that a personal computer has a 2.3 Ghz processor, and takes one hundred cycles per brute force against a DES key that is 56 bits or

Against a 128 bit Advanced Encryption System (AES) key.

What is the amount of time that is needed to crack the DES.

test all 2_{56} (2 to the power of 56) keys.

Similarly calculate the estimation for 128 bit AES key.