1. The following was enciphered by first putting the codeword DOCTORWHO at the beginning of the alphabet then shifting by 7 (as shown in class or see page 13 of your book for an example). Decipher the message. Show work and key.

SALIOXGQFXUAAR

1. Use a decimation cipher with a = 9 (CT = 9 \* PT (mod 26) ) to encipher FRIDAY. Show work.
2. An affine cipher with a = 5, b = 11 was used to encipher the following. Decipher the message. Show work.

Ulmzyp khy?

1. The following was enciphered with an affine cipher (CT = a \* PT + b (mod 26)). Find the key (a,b) and decipher to find the plaintext. Show work – do not just randomly guess keys. Write down the results of the frequency analysis (even if you use the website) and show how you solve the equations to get your guesses for the keys. Explain how you found the key and eliminated other guesses as possibilities.

gmgjdimgjkukgtkcgnfktbmgtktgbgvyvaamfaayktwpavgnfguyugjedkudkctjjdiviUdgvficBgvekt