

Exercises: Multiplicative and Affine ciphers

1. Encrypt the word 'tuna' using an multiplicative cipher with key value $a = 3$.
2. Encrypt the word 'rabbit' using an multiplicative cipher with key value $a = 25$.
3. If the multiplicative encryption key is $a = 3$, what is the decryption key?

4. If the multiplicative encryption key is $a = 25$, what is the decryption key?

5. Encrypt the word 'zebra' using an affine cipher with multiplicative key $a = 25$ and additive key $b = 25$.

6. If the formula for affine encryption is $c \equiv ap + b \pmod{26}$. What is the decryption formula?