

**DES to 3-DES:****Encryption:**

Encrypt plaintext with Key A.

**PART I**Message  Key Part A  Key Part B  **PART II**Your text to be encrypted/decrypted: Key to be used:   
 Output: 

Use the Encrypted text and Decrypt it with Key B.

**PART I**Message  Key Part A  Key Part B  **PART II**Your text to be encrypted/decrypted: Key to be used:   
 Output:

Use the Decrypted text and Encrypt it with Key A again. Then check your

**PART I**

Message

Key Part A

Key Part B

**PART II**

Your text to be encrypted/decrypted:

Key to be used:

Output:

**PART III**

Enter your answer here:

CORRECT!

**Decryption:**

Take the output of Encryption and decrypt it with Key A.

**PART I**

Message

Key Part A

Key Part B

**PART II**

Your text to be encrypted/decrypted:

Key to be used:

Output:

Use the decrypted text and encrypt it with Key B.

**PART I**

Message

Key Part A

Key Part B

**PART II**

Your text to be encrypted/decrypted:

Key to be used:

Output:

Use this encrypted text and decrypt it with Key A.

**PART I**

Message

Key Part A

Key Part B

**PART II**

Your text to be encrypted/decrypted:

Key to be used:

Output:

Plaintext (Before Encryption): 00010100 11010111 01001001 00010010 01111100 10011110 00011011 10000010

Ciphertext (After Decryption): 00010100 11010111 01001001 00010010 01111100 10011110 00011011 10000010.

As the plaintext and ciphertext are the same, thus Encryption and Decryption in DES to 3DES is successful

**AES****Encrypt line by line with Key.****PART I**Choose your mode of operation: Electronic Code Book (ECB) ▾**PART II**Key size in bits: 128 ▾

```
3cefbd5d 940515b4 8e333c0b 245e9de1
0712237a 4d02f95a c5cb094d eeee0de9
9651010b caeaff13 2d6bc988 5a9fe227
cdd93173 82129970 80c6fcb3 5e51d74f
02f19778 53a050fb b6538a6b 985bd164
```

Plaintext: ⌵Next PlaintextKey: 4562e591 bad8dcd3 2e8ede35 52311cbc ⌵Next KeytextIV: ⌵Next IVCTR: ⌵Next CTR**PART III**

Calculate XOR:

⌵⌵Calculate XORXOR: ⌵**PART IV**Key in hex: 4562e591 bad8dcd3 2e8ede35 52311cbcPlaintext in hex: 9651010b caeaff13 2d6bc988 5a9fe227Ciphertext in hex: 7be88ccf 30ce2e45 71abe159 f5c849a8EncryptDecryptClear**PART V**

Enter your answer here:

⌵Check Answer!

## PART I

Choose your mode of operation: Electronic Code Book (ECB) ▼

## PART II

Key size in bits: 128 ▼

```
3cefd5d 940515b4 8e333c0b 245e9de1
0712237a 4d02f95a c5cb094d eeee0de9
9651010b caeaff13 2d6bc988 5a9fe227
cdd93173 82129970 80c6fcb3 5e51d74f
02f19778 53a050fb b6538a6b 985bd164
```

Plaintext:

Next PlaintextKey: 4562e591 bad8dcd3 2e8ede35 52311cbcNext Keytext

IV:

Next IV

CTR:

Next CTR

## PART III

Calculate XOR:

Calculate XOR

XOR:

## PART IV

Key in hex:

4562e591 bad8dcd3 2e8ede35 52311cbc

Plaintext in hex:

cdd93173 82129970 80c6fcb3 5e51d74f

Ciphertext in hex:

1bb8ba39 0ae34aa7 fd2f3c9a e76fef83EncryptDecryptClear

## PART V

Enter your answer here:

Check Answer!

## PART I

Choose your mode of operation: Electronic Code Book (ECB) ▼

## PART II

Key size in bits: 128 ▼

```
3cefd5d 940515b4 8e333c0b 245e9de1
0712237a 4d02f95a c5cb094d eeee0de9
9651010b caeaff13 2d6bc988 5a9fe227
cdd93173 82129970 80c6fcb3 5e51d74f
02f19778 53a050fb b6538a6b 985bd164
```

Plaintext:

Next PlaintextKey: 4562e591 bad8dcd3 2e8ede35 52311cbcNext Keytext

IV:

Next IV

CTR:

Next CTR

## PART III

Calculate XOR:

Calculate XOR

XOR:

## PART IV

Key in hex:

4562e591 bad8dcd3 2e8ede35 52311cbc

Plaintext in hex:

02f19778 53a050fb b6538a6b 985bd164

Ciphertext in hex:

e99e3627 e41e7361 825cf46f 98e2f11bEncryptDecryptClear

## PART V

Enter your answer here:

Check Answer!

## PART I

Choose your mode of operation: Electronic Code Book (ECB) ▼

## PART II

Key size in bits: 128 ▼

```
3cefbd5d 940515b4 8e333c0b 245e9de1
0712237a 4d02f95a c5cb094d eeee0de9
9651010b caeaff13 2d6bc988 5a9fe227
cdd93173 82129970 80c6fcb3 5e51d74f
02f19778 53a050fb b6538a6b 985bd164
```

Plaintext: Next Plaintext Key: 4562e591 bad8dcd3 2e8ede35 52311cbc Next KeytextIV: Next IVCTR: Next CTR

## PART III

Calculate XOR:

Calculate XORXOR: 

## PART IV

Key in hex: 4562e591 bad8dcd3 2e8ede35 52311cbcPlaintext in hex: 02f19778 53a050fb b6538a6b 985bd164Ciphertext in hex: e99e3627 e41e7361 825cf46f 98e2f11bEncrypt Decrypt Clear

## PART V

Enter your answer here:

83677d87 a726ba39 60a496b3 104a6be9 e8baa632 cb1a2ec0 ceeb5198 b1362 Check Answer!

CORRECT!!