```
################################################################

  Block Cipher Modes of Operation

      Output FeedBack (OFB)

IV is
    00010203 04050607 08090A0B 0C0D0E0F

Plaintext is
    6BC1BEE2 2E409F96 E93D7E11 7393172A
    AE2D8A57 1E03AC9C 9EB76FAC 45AF8E51
    30C81C46 A35CE411 E5FBC119 1A0A52EF
    F69F2445 DF4F9B17 AD2B417B E66C3710

################################################################

OFB-AES128 (Encryption)
----------------------------------------------------------------

Key is
    2B7E1516 28AED2A6 ABF71588 09CF4F3C

Plaintext is
    6BC1BEE2 2E409F96 E93D7E11 7393172A
    AE2D8A57 1E03AC9C 9EB76FAC 45AF8E51
    30C81C46 A35CE411 E5FBC119 1A0A52EF
    F69F2445 DF4F9B17 AD2B417B E66C3710

  Block #1
    InputBlock    00010203 04050607 08090A0B 0C0D0E0F
    OutputBlock   50FE67CC 996D32B6 DA0937E9 9BAFEC60
    Text-In       6BC1BEE2 2E409F96 E93D7E11 7393172A
    Text-Out      3B3FD92E B72DAD20 333449F8 E83CFB4A
  Block #2
    InputBlock    50FE67CC 996D32B6 DA0937E9 9BAFEC60
    OutputBlock   D9A4DADA 0892239F 6B8B3D76 80E15674
    Text-In       AE2D8A57 1E03AC9C 9EB76FAC 45AF8E51
    Text-Out      7789508D 16918F03 F53C52DA C54ED825
  Block #3
    InputBlock    D9A4DADA 0892239F 6B8B3D76 80E15674
    OutputBlock   A7881958 3F0308E7 A6BF36B1 386ABF23
    Text-In       30C81C46 A35CE411 E5FBC119 1A0A52EF
    Text-Out      9740051E 9C5FECF6 4344F7A8 2260EDCC
  Block #4
    InputBlock    A7881958 3F0308E7 A6BF36B1 386ABF23
```

```
    OutputBlock   C6D3416D 29165C6F CB8E51A2 27BA994E
    Text-In       F69F2445 DF4F9B17 AD2B417B E66C3710
    Text-Out      304C6528 F659C778 66A510D9 C1D6AE5E

Ciphertext is
    3B3FD92E B72DAD20 333449F8 E83CFB4A
    7789508D 16918F03 F53C52DA C54ED825
    9740051E 9C5FECF6 4344F7A8 2260EDCC
    304C6528 F659C778 66A510D9 C1D6AE5E

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OFB-AES128 (Decryption)
----------------------------------------------------------------

Key is
    2B7E1516 28AED2A6 ABF71588 09CF4F3C

Ciphertext is
    3B3FD92E B72DAD20 333449F8 E83CFB4A
    7789508D 16918F03 F53C52DA C54ED825
    9740051E 9C5FECF6 4344F7A8 2260EDCC
    304C6528 F659C778 66A510D9 C1D6AE5E

  Block #1
    InputBlock    00010203 04050607 08090A0B 0C0D0E0F
    OutputBlock   50FE67CC 996D32B6 DA0937E9 9BAFEC60
    Text-In       3B3FD92E B72DAD20 333449F8 E83CFB4A
    Text-Out      6BC1BEE2 2E409F96 E93D7E11 7393172A
  Block #2
    InputBlock    50FE67CC 996D32B6 DA0937E9 9BAFEC60
    OutputBlock   D9A4DADA 0892239F 6B8B3D76 80E15674
    Text-In       7789508D 16918F03 F53C52DA C54ED825
    Text-Out      AE2D8A57 1E03AC9C 9EB76FAC 45AF8E51
  Block #3
    InputBlock    D9A4DADA 0892239F 6B8B3D76 80E15674
    OutputBlock   A7881958 3F0308E7 A6BF36B1 386ABF23
    Text-In       9740051E 9C5FECF6 4344F7A8 2260EDCC
    Text-Out      30C81C46 A35CE411 E5FBC119 1A0A52EF
  Block #4
    InputBlock    A7881958 3F0308E7 A6BF36B1 386ABF23
    OutputBlock   C6D3416D 29165C6F CB8E51A2 27BA994E
    Text-In       304C6528 F659C778 66A510D9 C1D6AE5E
    Text-Out      F69F2445 DF4F9B17 AD2B417B E66C3710

Plaintext is
```

```
    6BC1BEE2 2E409F96 E93D7E11 7393172A
    AE2D8A57 1E03AC9C 9EB76FAC 45AF8E51
    30C81C46 A35CE411 E5FBC119 1A0A52EF
    F69F2445 DF4F9B17 AD2B417B E66C3710

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OFB-AES192 (Encryption)
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Key is
    8E73B0F7 DA0E6452 C810F32B 809079E5
    62F8EAD2 522C6B7B

Plaintext is
    6BC1BEE2 2E409F96 E93D7E11 7393172A
    AE2D8A57 1E03AC9C 9EB76FAC 45AF8E51
    30C81C46 A35CE411 E5FBC119 1A0A52EF
    F69F2445 DF4F9B17 AD2B417B E66C3710

  Block #1
    InputBlock    00010203 04050607 08090A0B 0C0D0E0F
    OutputBlock   A609B38D F3B1133D DDFF2718 BA09565E
    Text-In       6BC1BEE2 2E409F96 E93D7E11 7393172A
    Text-Out      CDC80D6F DDF18CAB 34C25909 C99A4174
  Block #2
    InputBlock    A609B38D F3B1133D DDFF2718 BA09565E
    OutputBlock   52EF01DA 52602FE0 975F78AC 84BF8A50
    Text-In       AE2D8A57 1E03AC9C 9EB76FAC 45AF8E51
    Text-Out      FCC28B8D 4C63837C 09E81700 C1100401
  Block #3
    InputBlock    52EF01DA 52602FE0 975F78AC 84BF8A50
    OutputBlock   BD5286AC 63AABD7E B067AC54 B553F71D
    Text-In       30C81C46 A35CE411 E5FBC119 1A0A52EF
    Text-Out      8D9A9AEA C0F6596F 559C6D4D AF59A5F2
  Block #4
    InputBlock    BD5286AC 63AABD7E B067AC54 B553F71D
    OutputBlock   9B00044D 8885F729 31871330 3FC0FE3A
    Text-In       F69F2445 DF4F9B17 AD2B417B E66C3710
    Text-Out      6D9F2008 57CA6C3E 9CAC524B D9ACC92A

Ciphertext is
    CDC80D6F DDF18CAB 34C25909 C99A4174
    FCC28B8D 4C63837C 09E81700 C1100401
```

```
    8D9A9AEA C0F6596F 559C6D4D AF59A5F2
    6D9F2008 57CA6C3E 9CAC524B D9ACC92A

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OFB-AES192 (Decryption)
------------------------------------------------------------

Key is
    8E73B0F7 DA0E6452 C810F32B 809079E5
    62F8EAD2 522C6B7B

Ciphertext is
    CDC80D6F DDF18CAB 34C25909 C99A4174
    FCC28B8D 4C63837C 09E81700 C1100401
    8D9A9AEA C0F6596F 559C6D4D AF59A5F2
    6D9F2008 57CA6C3E 9CAC524B D9ACC92A

  Block #1
    InputBlock    00010203 04050607 08090A0B 0C0D0E0F
    OutputBlock   A609B38D F3B1133D DDFF2718 BA09565E
    Text-In       CDC80D6F DDF18CAB 34C25909 C99A4174
    Text-Out      6BC1BEE2 2E409F96 E93D7E11 7393172A
  Block #2
    InputBlock    A609B38D F3B1133D DDFF2718 BA09565E
    OutputBlock   52EF01DA 52602FE0 975F78AC 84BF8A50
    Text-In       FCC28B8D 4C63837C 09E81700 C1100401
    Text-Out      AE2D8A57 1E03AC9C 9EB76FAC 45AF8E51
  Block #3
    InputBlock    52EF01DA 52602FE0 975F78AC 84BF8A50
    OutputBlock   BD5286AC 63AABD7E B067AC54 B553F71D
    Text-In       8D9A9AEA C0F6596F 559C6D4D AF59A5F2
    Text-Out      30C81C46 A35CE411 E5FBC119 1A0A52EF
  Block #4
    InputBlock    BD5286AC 63AABD7E B067AC54 B553F71D
    OutputBlock   9B00044D 8885F729 31871330 3FC0FE3A
    Text-In       6D9F2008 57CA6C3E 9CAC524B D9ACC92A
    Text-Out      F69F2445 DF4F9B17 AD2B417B E66C3710

Plaintext is
    6BC1BEE2 2E409F96 E93D7E11 7393172A
    AE2D8A57 1E03AC9C 9EB76FAC 45AF8E51
    30C81C46 A35CE411 E5FBC119 1A0A52EF
    F69F2445 DF4F9B17 AD2B417B E66C3710

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OFB-AES256 (Encryption)
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Key is
    603DEB10 15CA71BE 2B73AEF0 857D7781
    1F352C07 3B6108D7 2D9810A3 0914DFF4

Plaintext is
    6BC1BEE2 2E409F96 E93D7E11 7393172A
    AE2D8A57 1E03AC9C 9EB76FAC 45AF8E51
    30C81C46 A35CE411 E5FBC119 1A0A52EF
    F69F2445 DF4F9B17 AD2B417B E66C3710

  Block #1
    InputBlock    00010203 04050607 08090A0B 0C0D0E0F
    OutputBlock   B7BF3A5D F43989DD 97F0FA97 EBCE2F4A
    Text-In       6BC1BEE2 2E409F96 E93D7E11 7393172A
    Text-Out      DC7E84BF DA79164B 7ECD8486 985D3860
  Block #2
    InputBlock    B7BF3A5D F43989DD 97F0FA97 EBCE2F4A
    OutputBlock   E1C65630 5ED1A7A6 56380574 6FE03EDC
    Text-In       AE2D8A57 1E03AC9C 9EB76FAC 45AF8E51
    Text-Out      4FEBDC67 40D20B3A C88F6AD8 2A4FB08D
  Block #3
    InputBlock    E1C65630 5ED1A7A6 56380574 6FE03EDC
    OutputBlock   41635BE6 25B48AFC 1666DD42 A09D96E7
    Text-In       30C81C46 A35CE411 E5FBC119 1A0A52EF
    Text-Out      71AB47A0 86E86EED F39D1C5B BA97C408
  Block #4
    InputBlock    41635BE6 25B48AFC 1666DD42 A09D96E7
    OutputBlock   F7B93058 B8BCE0FF FEA41BF0 012CD394
    Text-In       F69F2445 DF4F9B17 AD2B417B E66C3710
    Text-Out      0126141D 67F37BE8 538F5A8B E740E484

Ciphertext is
    DC7E84BF DA79164B 7ECD8486 985D3860
    4FEBDC67 40D20B3A C88F6AD8 2A4FB08D
    71AB47A0 86E86EED F39D1C5B BA97C408
    0126141D 67F37BE8 538F5A8B E740E484

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OFB-AES256 (Decryption)
```

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-------------------------------------------------------------

Key is
    603DEB10 15CA71BE 2B73AEF0 857D7781
    1F352C07 3B6108D7 2D9810A3 0914DFF4

Ciphertext is
    DC7E84BF DA79164B 7ECD8486 985D3860
    4FEBDC67 40D20B3A C88F6AD8 2A4FB08D
    71AB47A0 86E86EED F39D1C5B BA97C408
    0126141D 67F37BE8 538F5A8B E740E484

  Block #1
    InputBlock    00010203 04050607 08090A0B 0C0D0E0F
    OutputBlock   B7BF3A5D F43989DD 97F0FA97 EBCE2F4A
    Text-In       DC7E84BF DA79164B 7ECD8486 985D3860
    Text-Out      6BC1BEE2 2E409F96 E93D7E11 7393172A
  Block #2
    InputBlock    B7BF3A5D F43989DD 97F0FA97 EBCE2F4A
    OutputBlock   E1C65630 5ED1A7A6 56380574 6FE03EDC
    Text-In       4FEBDC67 40D20B3A C88F6AD8 2A4FB08D
    Text-Out      AE2D8A57 1E03AC9C 9EB76FAC 45AF8E51
  Block #3
    InputBlock    E1C65630 5ED1A7A6 56380574 6FE03EDC
    OutputBlock   41635BE6 25B48AFC 1666DD42 A09D96E7
    Text-In       71AB47A0 86E86EED F39D1C5B BA97C408
    Text-Out      30C81C46 A35CE411 E5FBC119 1A0A52EF
  Block #4
    InputBlock    41635BE6 25B48AFC 1666DD42 A09D96E7
    OutputBlock   F7B93058 B8BCE0FF FEA41BF0 012CD394
    Text-In       0126141D 67F37BE8 538F5A8B E740E484
    Text-Out      F69F2445 DF4F9B17 AD2B417B E66C3710

Plaintext is
    6BC1BEE2 2E409F96 E93D7E11 7393172A
    AE2D8A57 1E03AC9C 9EB76FAC 45AF8E51
    30C81C46 A35CE411 E5FBC119 1A0A52EF
    F69F2445 DF4F9B17 AD2B417B E66C3710

*************************************************************
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