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

  Block Cipher Modes of Operation

      Counter (CTR)

Initial Counter is
    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFEFF

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

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

CTR-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    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFEFF
    OutputBlock   EC8CDF73 98607CB0 F2D21675 EA9EA1E4
    Text-In       6BC1BEE2 2E409F96 E93D7E11 7393172A
    Text-Out      874D6191 B620E326 1BEF6864 990DB6CE
  Block #2
    InputBlock    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFF00
    OutputBlock   362B7C3C 67735163 18A077D7 FC5073AE
    Text-In       AE2D8A57 1E03AC9C 9EB76FAC 45AF8E51
    Text-Out      9806F66B 7970FDFF 8617187B B9FFFDFF
  Block #3
    InputBlock    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFF01
    OutputBlock   6A2CC378 7889374F BEB4C81B 17BA6C44
    Text-In       30C81C46 A35CE411 E5FBC119 1A0A52EF
    Text-Out      5AE4DF3E DBD5D35E 5B4F0902 0DB03EAB
  Block #4
    InputBlock    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFF02
    OutputBlock   E89C399F F0F198C6 D40A31DB 156CABFE
    Text-In       F69F2445 DF4F9B17 AD2B417B E66C3710
    Text-Out      1E031DDA 2FBE03D1 792170A0 F3009CEE

Ciphertext is
    874D6191 B620E326 1BEF6864 990DB6CE
    9806F66B 7970FDFF 8617187B B9FFFDFF
    5AE4DF3E DBD5D35E 5B4F0902 0DB03EAB
    1E031DDA 2FBE03D1 792170A0 F3009CEE

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CTR-AES128 (Decryption)
--------------------------------------------------------------

Key is
    2B7E1516 28AED2A6 ABF71588 09CF4F3C

Ciphertext is
    874D6191 B620E326 1BEF6864 990DB6CE
    9806F66B 7970FDFF 8617187B B9FFFDFF
    5AE4DF3E DBD5D35E 5B4F0902 0DB03EAB
    1E031DDA 2FBE03D1 792170A0 F3009CEE

  Block #1
    InputBlock    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFEFF
    OutputBlock   EC8CDF73 98607CB0 F2D21675 EA9EA1E4
    Text-In       874D6191 B620E326 1BEF6864 990DB6CE
    Text-Out      6BC1BEE2 2E409F96 E93D7E11 7393172A
  Block #2
    InputBlock    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFF00
    OutputBlock   362B7C3C 67735163 18A077D7 FC5073AE
    Text-In       9806F66B 7970FDFF 8617187B B9FFFDFF
    Text-Out      AE2D8A57 1E03AC9C 9EB76FAC 45AF8E51
  Block #3
    InputBlock    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFF01
    OutputBlock   6A2CC378 7889374F BEB4C81B 17BA6C44
    Text-In       5AE4DF3E DBD5D35E 5B4F0902 0DB03EAB
    Text-Out      30C81C46 A35CE411 E5FBC119 1A0A52EF
  Block #4
    InputBlock    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFF02
    OutputBlock   E89C399F F0F198C6 D40A31DB 156CABFE
    Text-In       1E031DDA 2FBE03D1 792170A0 F3009CEE
    Text-Out      F69F2445 DF4F9B17 AD2B417B E66C3710

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

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CTR-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    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFEFF
    OutputBlock   717D2DC6 39128334 A6167A48 8DED7921
    Text-In       6BC1BEE2 2E409F96 E93D7E11 7393172A
    Text-Out      1ABC9324 17521CA2 4F2B0459 FE7E6E0B
  Block #2
    InputBlock    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFF00
    OutputBlock   A72EB3BB 14A55673 4B7BAD6A B16100C5
    Text-In       AE2D8A57 1E03AC9C 9EB76FAC 45AF8E51
    Text-Out      090339EC 0AA6FAEF D5CCC2C6 F4CE8E94
  Block #3
    InputBlock    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFF01
    OutputBlock   2EFEAE2D 72B72261 3446DC7F 4C2AF918
    Text-In       30C81C46 A35CE411 E5FBC119 1A0A52EF
    Text-Out      1E36B26B D1EBC670 D1BD1D66 5620ABF7
  Block #4
    InputBlock    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFF02
    OutputBlock   B9E783B3 0DD7924F F7BC9B97 BEAA8740
    Text-In       F69F2445 DF4F9B17 AD2B417B E66C3710
    Text-Out      4F78A7F6 D2980958 5A97DAEC 58C6B050

Ciphertext is
    1ABC9324 17521CA2 4F2B0459 FE7E6E0B
    090339EC 0AA6FAEF D5CCC2C6 F4CE8E94
    1E36B26B D1EBC670 D1BD1D66 5620ABF7
    4F78A7F6 D2980958 5A97DAEC 58C6B050

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CTR-AES192 (Decryption)
--------------------------------------------------------------

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

Ciphertext is
    1ABC9324 17521CA2 4F2B0459 FE7E6E0B
    090339EC 0AA6FAEF D5CCC2C6 F4CE8E94
    1E36B26B D1EBC670 D1BD1D66 5620ABF7
    4F78A7F6 D2980958 5A97DAEC 58C6B050

  Block #1
    InputBlock    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFEFF
    OutputBlock   717D2DC6 39128334 A6167A48 8DED7921
    Text-In       1ABC9324 17521CA2 4F2B0459 FE7E6E0B
    Text-Out      6BC1BEE2 2E409F96 E93D7E11 7393172A
  Block #2
    InputBlock    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFF00
    OutputBlock   A72EB3BB 14A55673 4B7BAD6A B16100C5
    Text-In       090339EC 0AA6FAEF D5CCC2C6 F4CE8E94
    Text-Out      AE2D8A57 1E03AC9C 9EB76FAC 45AF8E51
  Block #3
    InputBlock    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFF01
    OutputBlock   2EFEAE2D 72B72261 3446DC7F 4C2AF918
    Text-In       1E36B26B D1EBC670 D1BD1D66 5620ABF7
    Text-Out      30C81C46 A35CE411 E5FBC119 1A0A52EF
  Block #4
    InputBlock    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFF02
    OutputBlock   B9E783B3 0DD7924F F7BC9B97 BEAA8740
    Text-In       4F78A7F6 D2980958 5A97DAEC 58C6B050
    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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CTR-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    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFEFF
    OutputBlock   0BDF7DF1 59171633 5E9A8B15 C860C502
    Text-In       6BC1BEE2 2E409F96 E93D7E11 7393172A
    Text-Out      601EC313 775789A5 B7A7F504 BBF3D228
  Block #2
    InputBlock    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFF00
    OutputBlock   5A6E699D 53611906 5433863C 8F657B94
    Text-In       AE2D8A57 1E03AC9C 9EB76FAC 45AF8E51
    Text-Out      F443E3CA 4D62B59A CA84E990 CACAF5C5
  Block #3
    InputBlock    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFF01
    OutputBlock   1BC12C9C 01610D5D 0D8BD6A3 378ECA62
    Text-In       30C81C46 A35CE411 E5FBC119 1A0A52EF
    Text-Out      2B0930DA A23DE94C E87017BA 2D84988D
  Block #4
    InputBlock    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFF02
    OutputBlock   2956E1C8 693536B1 BEE99C73 A31576B6
    Text-In       F69F2445 DF4F9B17 AD2B417B E66C3710
    Text-Out      DFC9C58D B67AADA6 13C2DD08 457941A6

Ciphertext is
    601EC313 775789A5 B7A7F504 BBF3D228
    F443E3CA 4D62B59A CA84E990 CACAF5C5
    2B0930DA A23DE94C E87017BA 2D84988D
    DFC9C58D B67AADA6 13C2DD08 457941A6

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CTR-AES256 (Decryption)
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--------------------------------------------------------------

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

Ciphertext is
    601EC313 775789A5 B7A7F504 BBF3D228
    F443E3CA 4D62B59A CA84E990 CACAF5C5
    2B0930DA A23DE94C E87017BA 2D84988D
    DFC9C58D B67AADA6 13C2DD08 457941A6

  Block #1
    InputBlock    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFEFF
    OutputBlock   0BDF7DF1 59171633 5E9A8B15 C860C502
    Text-In       601EC313 775789A5 B7A7F504 BBF3D228
    Text-Out      6BC1BEE2 2E409F96 E93D7E11 7393172A
  Block #2
    InputBlock    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFF00
    OutputBlock   5A6E699D 53611906 5433863C 8F657B94
    Text-In       F443E3CA 4D62B59A CA84E990 CACAF5C5
    Text-Out      AE2D8A57 1E03AC9C 9EB76FAC 45AF8E51
  Block #3
    InputBlock    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFF01
    OutputBlock   1BC12C9C 01610D5D 0D8BD6A3 378ECA62
    Text-In       2B0930DA A23DE94C E87017BA 2D84988D
    Text-Out      30C81C46 A35CE411 E5FBC119 1A0A52EF
  Block #4
    InputBlock    F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFF02
    OutputBlock   2956E1C8 693536B1 BEE99C73 A31576B6
    Text-In       DFC9C58D B67AADA6 13C2DD08 457941A6
    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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