```
Secure Hash Algorithm
   Message Digest Length = 256
One Block Message Sample
 Input Message: "abc"
Initial hash value:
 H[0] = 6A09E667
 H[1] = BB67AE85
 H[2] = 3C6EF372
 H[3] = A54FF53A
 H[4] = 510E527F
 H[5] = 9B05688C
 H[6] = 1F83D9AB
 H[7] = 5BE0CD19
 ______
Block Contents:
 W[0] = 61626380
 W[1] = 00000000
 W[2] = 00000000
 W[3] = 00000000
 W[4] = 00000000
 W[5] = 00000000
 W[6] = 00000000
 W[7] = 00000000
 W[8] = 00000000
 W[9] = 00000000
 W[10] = 00000000
 W[11] = 00000000
 W[12] = 00000000
 W[13] = 00000000
 W[14] = 00000000
 W[15] = 00000018
                 В
                        C
                                 D
                                        Ε
                                                 F
t= 0: 5D6AEBCD 6A09E667 BB67AE85 3C6EF372 FA2A4622 510E527F 9B05688C 1F83D9AB
t= 1: 5A6AD9AD 5D6AEBCD 6A09E667 BB67AE85 78CE7989 FA2A4622 510E527F 9B05688C
t= 2: C8C347A7 5A6AD9AD 5D6AEBCD 6A09E667 F92939EB 78CE7989 FA2A4622 510E527F
t= 3: D550F666 C8C347A7 5A6AD9AD 5D6AEBCD 24E00850 F92939EB 78CE7989 FA2A4622
t= 4: 04409A6A D550F666 C8C347A7 5A6AD9AD 43ADA245 24E00850 F92939EB 78CE7989
t= 5: 2B4209F5 04409A6A D550F666 C8C347A7 714260AD 43ADA245 24E00850 F92939EB
t= 6: E5030380 2B4209F5 04409A6A D550F666 9B27A401 714260AD 43ADA245 24E00850
t= 7: 85A07B5F E5030380 2B4209F5 04409A6A 0C657A79 9B27A401 714260AD 43ADA245
t= 8: 8E04ECB9 85A07B5F E5030380 2B4209F5 32CA2D8C 0C657A79 9B27A401 714260AD
t= 9: 8C87346B 8E04ECB9 85A07B5F E5030380 1CC92596 32CA2D8C 0C657A79 9B27A401
t=10: 4798A3F4 8C87346B 8E04ECB9 85A07B5F 436B23E8 1CC92596 32CA2D8C 0C657A79
t=11: F71FC5A9 4798A3F4 8C87346B 8E04ECB9 816FD6E9 436B23E8 1CC92596 32CA2D8C
t=12: 87912990 F71FC5A9 4798A3F4 8C87346B 1E578218 816FD6E9 436B23E8 1CC92596
```

```
t=13: D932EB16 87912990 F71FC5A9 4798A3F4 745A48DE 1E578218 816FD6E9 436B23E8
t=14: C0645FDE D932EB16 87912990 F71FC5A9 0B92F20C 745A48DE 1E578218 816FD6E9
t=15: B0FA238E C0645FDE D932EB16 87912990 07590DCD 0B92F20C 745A48DE 1E578218
t=16: 21DA9A9B B0FA238E C0645FDE D932EB16 8034229C 07590DCD 0B92F20C 745A48DE
t=17: C2FBD9D1 21DA9A9B B0FA238E C0645FDE 846EE454 8034229C 07590DCD 0B92F20C
t=18: FE777BBF C2FBD9D1 21DA9A9B B0FA238E CC899961 846EE454 8034229C 07590DCD
t=19: E1F20C33 FE777BBF C2FBD9D1 21DA9A9B B0638179 CC899961 846EE454 8034229C
t=20: 9DC68B63 E1F20C33 FE777BBF C2FBD9D1 8ADA8930 B0638179 CC899961 846EE454
t=21: C2606D6D 9DC68B63 E1F20C33 FE777BBF E1257970 8ADA8930 B0638179 CC899961
t=22: A7A3623F C2606D6D 9DC68B63 E1F20C33 49F5114A E1257970 8ADA8930 B0638179
t=23: C5D53D8D A7A3623F C2606D6D 9DC68B63 AA47C347 49F5114A E1257970 8ADA8930
t=24: 1C2C2838 C5D53D8D A7A3623F C2606D6D 2823EF91 AA47C347 49F5114A E1257970
t=25: CDE8037D 1C2C2838 C5D53D8D A7A3623F 14383D8E 2823EF91 AA47C347 49F5114A
t=26: B62EC4BC CDE8037D 1C2C2838 C5D53D8D C74C6516 14383D8E 2823EF91 AA47C347
t=27: 77D37528 B62EC4BC CDE8037D 1C2C2838 EDFFBFF8 C74C6516 14383D8E 2823EF91
t=28: 363482C9 77D37528 B62EC4BC CDE8037D 6112A3B7 EDFFBFF8 C74C6516 14383D8E
t=29: A0060B30 363482C9 77D37528 B62EC4BC ADE79437 6112A3B7 EDFFBFF8 C74C6516
t=30: EA992A22 A0060B30 363482C9 77D37528 0109AB3A ADE79437 6112A3B7 EDFFBFF8
t=31: 73B33BF5 EA992A22 A0060B30 363482C9 BA591112 0109AB3A ADE79437 6112A3B7
t=32: 98E12507 73B33BF5 EA992A22 A0060B30 9CD9F5F6 BA591112 0109AB3A ADE79437
t=33: FE604DF5 98E12507 73B33BF5 EA992A22 59249DD3 9CD9F5F6 BA591112 0109AB3A
t=34: A9A7738C FE604DF5 98E12507 73B33BF5 085F3833 59249DD3 9CD9F5F6 BA591112
t=35: 65A0CFE4 A9A7738C FE604DF5 98E12507 F4B002D6 085F3833 59249DD3 9CD9F5F6
t=36: 41A65CB1 65A0CFE4 A9A7738C FE604DF5 0772A26B F4B002D6 085F3833 59249DD3
t=37: 34DF1604 41A65CB1 65A0CFE4 A9A7738C A507A53D 0772A26B F4B002D6 085F3833
t=38: 6DC57A8A 34DF1604 41A65CB1 65A0CFE4 F0781BC8 A507A53D 0772A26B F4B002D6
t=39: 79EA687A 6DC57A8A 34DF1604 41A65CB1 1EFBC0A0 F0781BC8 A507A53D 0772A26B
t=40: D6670766 79EA687A 6DC57A8A 34DF1604 26352D63 1EFBC0A0 F0781BC8 A507A53D
t=41: DF46652F D6670766 79EA687A 6DC57A8A 838B2711 26352D63 1EFBC0A0 F0781BC8
t=42: 17AA0DFE DF46652F D6670766 79EA687A DECD4715 838B2711 26352D63 1EFBC0A0
t=43: 9D4BAF93 17AA0DFE DF46652F D6670766 FDA24C2E DECD4715 838B2711 26352D63
t=44: 26628815 9D4BAF93 17AA0DFE DF46652F A80F11F0 FDA24C2E DECD4715 838B2711
t=45: 72AB4B91 26628815 9D4BAF93 17AA0DFE B7755DA1 A80F11F0 FDA24C2E DECD4715
t=46: A14C14B0 72AB4B91 26628815 9D4BAF93 D57B94A9 B7755DA1 A80F11F0 FDA24C2E
t=47: 4172328D A14C14B0 72AB4B91 26628815 FECF0BC6 D57B94A9 B7755DA1 A80F11F0
t=48: 05757CEB 4172328D A14C14B0 72AB4B91 BD714038 FECF0BC6 D57B94A9 B7755DA1
t=49: F11BFAA8 05757CEB 4172328D A14C14B0 6E5C390C BD714038 FECF0BC6 D57B94A9
t=50: 7A0508A1 F11BFAA8 05757CEB 4172328D 52F1CCF7 6E5C390C BD714038 FECF0BC6
t=51: 886E7A22 7A0508A1 F11BFAA8 05757CEB 49231C1E 52F1CCF7 6E5C390C BD714038
t=52: 101FD28F 886E7A22 7A0508A1 F11BFAA8 529E7D00 49231C1E 52F1CCF7 6E5C390C
t=53: F5702FDB 101FD28F 886E7A22 7A0508A1 9F4787C3 529E7D00 49231C1E 52F1CCF7
t=54: 3EC45CDB F5702FDB 101FD28F 886E7A22 E50E1B4F 9F4787C3 529E7D00 49231C1E
t=55: 38CC9913 3EC45CDB F5702FDB 101FD28F 54CB266B E50E1B4F 9F4787C3 529E7D00
t=56: FCD1887B 38CC9913 3EC45CDB F5702FDB 9B5E906C 54CB266B E50E1B4F 9F4787C3
t=57: C062D46F FCD1887B 38CC9913 3EC45CDB 7E44008E 9B5E906C 54CB266B E50E1B4F
t=58: FFB70472 C062D46F FCD1887B 38CC9913 6D83BFC6 7E44008E 9B5E906C 54CB266B
t=59: B6AE8FFF FFB70472 C062D46F FCD1887B B21BAD3D 6D83BFC6 7E44008E 9B5E906C
t=60: B85E2CE9 B6AE8FFF FFB70472 C062D46F 961F4894 B21BAD3D 6D83BFC6 7E44008E
t=61: 04D24D6C B85E2CE9 B6AE8FFF FFB70472 948D25B6 961F4894 B21BAD3D 6D83BFC6
t=62: D39A2165 04D24D6C B85E2CE9 B6AE8FFF FB121210 948D25B6 961F4894 B21BAD3D
t=63: 506E3058 D39A2165 04D24D6C B85E2CE9 5EF50F24 FB121210 948D25B6 961F4894
H[0] = 6A09E667 + 506E3058 = BA7816BF
```

H[0] = 6A09E667 + 506E3058 = BA7816BF H[1] = BB67AE85 + D39A2165 = 8F01CFEA H[2] = 3C6EF372 + 04D24D6C = 414140DE H[3] = A54FF53A + B85E2CE9 = 5DAE2223 H[4] = 510E527F + 5EF50F24 = B00361A3 H[5] = 9B05688C + FB121210 = 96177A9C

```
H[6] = 1F83D9AB + 948D25B6 = B410FF61
H[7] = 5BE0CD19 + 961F4894 = F20015AD
Message Digest is
                                              BA7816BF 8F01CFEA
          414140DE 5DAE2223 B00361A3 96177A9C B410FF61 F20015AD
Two Block Message Sample
Input Message:
"abcdbcdecdefdefgefghfghighijhijkijkljklmklmnlmnomnopnopq"
Initial hash value:
  H[0] = 6A09E667
  H[1] = BB67AE85
  H[2] = 3C6EF372
  H[3] = A54FF53A
  H[4] = 510E527F
  H[5] = 9B05688C
  H[6] = 1F83D9AB
  H[7] = 5BE0CD19
Block Contents:
  W[0] = 61626364
  W[1] = 62636465
  W[2] = 63646566
  W[3] = 64656667
  W[4] = 65666768
  W[5] = 66676869
  W[6] = 6768696A
  W[7] = 68696A6B
  W[8] = 696A6B6C
  W[9] = 6A6B6C6D
  W[10] = 6B6C6D6E
  W[11] = 6C6D6E6F
  W[12] = 6D6E6F70
  W[13] = 6E6F7071
  W[14] = 80000000
  W[15] = 00000000
                            C
                                     D
                                                       F
                                            Ε
t= 0: 5D6AEBB1 6A09E667 BB67AE85 3C6EF372 FA2A4606 510E527F 9B05688C 1F83D9AB
t= 1: 2F2D5FCF 5D6AEBB1 6A09E667 BB67AE85 4EB1CFCE FA2A4606 510E527F 9B05688C
t= 2: 97651825 2F2D5FCF 5D6AEBB1 6A09E667 62D5C49E 4EB1CFCE FA2A4606 510E527F
t= 3: 4A8D64D5 97651825 2F2D5FCF 5D6AEBB1 6494841B 62D5C49E 4EB1CFCE FA2A4606
t= 4: F921C212 4A8D64D5 97651825 2F2D5FCF 05C4F88A 6494841B 62D5C49E 4EB1CFCE
t= 5: 55C8EF48 F921C212 4A8D64D5 97651825 7FF91C94 05C4F88A 6494841B 62D5C49E
t= 6: 485835B7 55C8EF48 F921C212 4A8D64D5 39A5B2CA 7FF91C94 05C4F88A 6494841B
```

```
t= 7: D237E6DB 485835B7 55C8EF48 F921C212 A401D211 39A5B2CA 7FF91C94 05C4F88A
t= 8: 359F2BCE D237E6DB 485835B7 55C8EF48 C09FFEC4 A401D211 39A5B2CA 7FF91C94
t= 9: 3A474B2B 359F2BCE D237E6DB 485835B7 9037B3B8 C09FFEC4 A401D211 39A5B2CA
t=10: B8E2B4CB 3A474B2B 359F2BCE D237E6DB 443ED29E 9037B3B8 C09FFEC4 A401D211
t=11: 1762215C B8E2B4CB 3A474B2B 359F2BCE EE1C97A8 443ED29E 9037B3B8 C09FFEC4
t=12: 101A4861 1762215C B8E2B4CB 3A474B2B 839A0FC9 EE1C97A8 443ED29E 9037B3B8
t=13: D68E6457 101A4861 1762215C B8E2B4CB 9243F8AF 839A0FC9 EE1C97A8 443ED29E
t=14: DD16CBB3 D68E6457 101A4861 1762215C 9162ADED 9243F8AF 839A0FC9 EE1C97A8
t=15: C3486194 DD16CBB3 D68E6457 101A4861 1496A54F 9162ADED 9243F8AF 839A0FC9
t=16: B9DCACB1 C3486194 DD16CBB3 D68E6457 D4F64250 1496A54F 9162ADED 9243F8AF
t=17: 046A193E B9DCACB1 C3486194 DD16CBB3 885370B6 D4F64250 1496A54F 9162ADED
t=18: F402F058 046A193E B9DCACB1 C3486194 6F433549 885370B6 D4F64250 1496A54F
t=19: 2139187B F402F058 046A193E B9DCACB1 7C304206 6F433549 885370B6 D4F64250
t=20: D70AC17D 2139187B F402F058 046A193E 7CC6B262 7C304206 6F433549 885370B6
t=21: 1B2B66B8 D70AC17D 2139187B F402F058 D560B028 7CC6B262 7C304206 6F433549
t=22: AE2E2D4F 1B2B66B8 D70AC17D 2139187B F074FC95 D560B028 7CC6B262 7C304206
t=23: 59FCE6B9 AE2E2D4F 1B2B66B8 D70AC17D A2C7D51D F074FC95 D560B028 7CC6B262
t=24: 4A885065 59FCE6B9 AE2E2D4F 1B2B66B8 763597FB A2C7D51D F074FC95 D560B028
t=25: 573221DA 4A885065 59FCE6B9 AE2E2D4F 36E74EB4 763597FB A2C7D51D F074FC95
t=26: 128661DA 573221DA 4A885065 59FCE6B9 1162D575 36E74EB4 763597FB A2C7D51D
t=27: 73F858AF 128661DA 573221DA 4A885065 E77C797F 1162D575 36E74EB4 763597FB
t=28: 74BCF468 73F858AF 128661DA 573221DA 72ABAECD E77C797F 1162D575 36E74EB4
t=29: DF7151A0 74BCF468 73F858AF 128661DA 7629C961 72ABAECD E77C797F 1162D575
t=30: EB43F3ED DF7151A0 74BCF468 73F858AF 0635D880 7629C961 72ABAECD E77C797F
t=31: 5581AB07 EB43F3ED DF7151A0 74BCF468 DF980085 0635D880 7629C961 72ABAECD
t=32: 9FC905C8 5581AB07 EB43F3ED DF7151A0 A94D2AF1 DF980085 0635D880 7629C961
t=33: 9CE5A62F 9FC905C8 5581AB07 EB43F3ED 6EF3B6BD A94D2AF1 DF980085 0635D880
t=34: 1DF8E885 9CE5A62F 9FC905C8 5581AB07 2A9E048E 6EF3B6BD A94D2AF1 DF980085
t=35: 0786DCE8 1DF8E885 9CE5A62F 9FC905C8 DE2A21D1 2A9E048E 6EF3B6BD A94D2AF1
t=36: 2C55D3A6 0786DCE8 1DF8E885 9CE5A62F B067C1AF DE2A21D1 2A9E048E 6EF3B6BD
t=37: A985B4BE 2C55D3A6 0786DCE8 1DF8E885 F72BF353 B067C1AF DE2A21D1 2A9E048E
t=38: 91AC9D5D A985B4BE 2C55D3A6 0786DCE8 68D8D590 F72BF353 B067C1AF DE2A21D1
t=39: 7E4D30B8 91AC9D5D A985B4BE 2C55D3A6 9F5B9B6D 68D8D590 F72BF353 B067C1AF
t=40: 7E056794 7E4D30B8 91AC9D5D A985B4BE 423B26C0 9F5B9B6D 68D8D590 F72BF353
t=41: 508A16AB 7E056794 7E4D30B8 91AC9D5D 45459D97 423B26C0 9F5B9B6D 68D8D590
t=42: B62C7013 508A16AB 7E056794 7E4D30B8 80A92A00 45459D97 423B26C0 9F5B9B6D
t=43: 167361DE B62C7013 508A16AB 7E056794 41DD3844 80A92A00 45459D97 423B26C0
t=44: DE71E2F2 167361DE B62C7013 508A16AB FF61C636 41DD3844 80A92A00 45459D97
t=45: 18F0D19D DE71E2F2 167361DE B62C7013 6B88472C FF61C636 41DD3844 80A92A00
t=46: 165BE9CD 18F0D19D DE71E2F2 167361DE A483F080 6B88472C FF61C636 41DD3844
t=47: 13D82741 165BE9CD 18F0D19D DE71E2F2 A7802A4D A483F080 6B88472C FF61C636
t=48: 017B9D99 13D82741 165BE9CD 18F0D19D AEB10B60 A7802A4D A483F080 6B88472C
t=49: 543C99A1 017B9D99 13D82741 165BE9CD 16F134B6 AEB10B60 A7802A4D A483F080
t=50: 758CA97A 543C99A1 017B9D99 13D82741 100CF2EA 16F134B6 AEB10B60 A7802A4D
t=51: 81C1CDE0 758CA97A 543C99A1 017B9D99 5C47EB7B 100CF2EA 16F134B6 AEB10B60
t=52: B8D55619 81C1CDE0 758CA97A 543C99A1 1C806A61 5C47EB7B 100CF2EA 16F134B6
t=53: 1D6DE87A B8D55619 81C1CDE0 758CA97A 3443BED4 1C806A61 5C47EB7B 100CF2EA
t=54: F907B313 1D6DE87A B8D55619 81C1CDE0 61A41711 3443BED4 1C806A61 5C47EB7B
t=55: 9E57C4A0 F907B313 1D6DE87A B8D55619 EEC13548 61A41711 3443BED4 1C806A61
t=56: 71629856 9E57C4A0 F907B313 1D6DE87A 2F6C8C4E EEC13548 61A41711 3443BED4
t=57: 7C015A2C 71629856 9E57C4A0 F907B313 CB9D3DD0 2F6C8C4E EEC13548 61A41711
t=58: 921FCCB6 7C015A2C 71629856 9E57C4A0 43D8A034 CB9D3DD0 2F6C8C4E EEC13548
t=59: E18F259A 921FCCB6 7C015A2C 71629856 51E15869 43D8A034 CB9D3DD0 2F6C8C4E
t=60: BCFCE922 E18F259A 921FCCB6 7C015A2C 962D8621 51E15869 43D8A034 CB9D3DD0
t=61: F6F443F8 BCFCE922 E18F259A 921FCCB6 ACC75916 962D8621 51E15869 43D8A034
t=62: 86126910 F6F443F8 BCFCE922 E18F259A 2FC08F85 ACC75916 962D8621 51E15869
t=63: 1BDC6F6F 86126910 F6F443F8 BCFCE922 25D2430A 2FC08F85 ACC75916 962D8621
```

```
H[0] = 6A09E667 + 1BDC6F6F = 85E655D6
H[1] = BB67AE85 + 86126910 = 417A1795
H[2] = 3C6EF372 + F6F443F8 = 3363376A
H[3] = A54FF53A + BCFCE922 = 624CDE5C
H[4] = 510E527F + 25D2430A = 76E09589
H[5] = 9B05688C + 2FC08F85 = CAC5F811
H[6] = 1F83D9AB + ACC75916 = CC4B32C1
H[7] = 5BE0CD19 + 962D8621 = F20E533A
Block Contents:
  W[0] = 00000000
 W[1] = 00000000
 W[2] = 00000000
 W[3] = 00000000
 W[4] = 00000000
 W[5] = 00000000
  W[6] = 00000000
 W[7] = 00000000
 W[8] = 00000000
  W[9] = 00000000
 W[10] = 00000000
 W[11] = 00000000
  W[12] = 00000000
  W[13] = 00000000
 W[14] = 00000000
 W[15] = 00000100
                            C
                                     D
                                              Ε
                                                       F
t= 0: 7C20C838 85E655D6 417A1795 3363376A 4670AE6E 76E09589 CAC5F811 CC4B32C1
t= 1: 7C3C0F86 7C20C838 85E655D6 417A1795 8C51BE64 4670AE6E 76E09589 CAC5F811
t= 2: FD1EEBDC 7C3C0F86 7C20C838 85E655D6 AF71B9EA 8C51BE64 4670AE6E 76E09589
t= 3: F268FAA9 FD1EEBDC 7C3C0F86 7C20C838 E20362EF AF71B9EA 8C51BE64 4670AE6E
t= 4: 185A5D79 F268FAA9 FD1EEBDC 7C3C0F86 8DFF3001 E20362EF AF71B9EA 8C51BE64
t= 5: 3EEB6C06 185A5D79 F268FAA9 FD1EEBDC FE20CDA6 8DFF3001 E20362EF AF71B9EA
t= 6: 89BBA3F1 3EEB6C06 185A5D79 F268FAA9 0A34DF03 FE20CDA6 8DFF3001 E20362EF
t= 7: BF9A93A0 89BBA3F1 3EEB6C06 185A5D79 059ABDD1 0A34DF03 FE20CDA6 8DFF3001
t= 8: 2C096744 BF9A93A0 89BBA3F1 3EEB6C06 ABFA465B 059ABDD1 0A34DF03 FE20CDA6
t= 9: 2D964E86 2C096744 BF9A93A0 89BBA3F1 AA27ED82 ABFA465B 059ABDD1 0A34DF03
t=10: 5B35025B 2D964E86 2C096744 BF9A93A0 10E77723 AA27ED82 ABFA465B 059ABDD1
t=11: 5EB4EC40 5B35025B 2D964E86 2C096744 E11B4548 10E77723 AA27ED82 ABFA465B
t=12: 35EE996D 5EB4EC40 5B35025B 2D964E86 5C24E2A2 E11B4548 10E77723 AA27ED82
t=13: D74080FA 35EE996D 5EB4EC40 5B35025B 68AA893F 5C24E2A2 E11B4548 10E77723
t=14: 0CEA5CBC D74080FA 35EE996D 5EB4EC40 60356548 68AA893F 5C24E2A2 E11B4548
t=15: 16A8CC79 0CEA5CBC D74080FA 35EE996D 0FCB1F6F 60356548 68AA893F 5C24E2A2
t=16: F16F634E 16A8CC79 0CEA5CBC D74080FA 8B21CDC1 0FCB1F6F 60356548 68AA893F
t=17: 23DCB6C2 F16F634E 16A8CC79 0CEA5CBC CA9182D3 8B21CDC1 0FCB1F6F 60356548
t=18: DCFF40FD 23DCB6C2 F16F634E 16A8CC79 69BF7B95 CA9182D3 8B21CDC1 0FCB1F6F
t=19: 76F1A2BC DCFF40FD 23DCB6C2 F16F634E 0DC84BB1 69BF7B95 CA9182D3 8B21CDC1
t=20: 20AAD899 76F1A2BC DCFF40FD 23DCB6C2 CC4769F2 0DC84BB1 69BF7B95 CA9182D3
t=21: D44DC81A 20AAD899 76F1A2BC DCFF40FD 5BACE62D CC4769F2 0DC84BB1 69BF7B95
t=22: F13AE55B D44DC81A 20AAD899 76F1A2BC 966AA287 5BACE62D CC4769F2 0DC84BB1
t=23: A4195B91 F13AE55B D44DC81A 20AAD899 EDDBD6ED 966AA287 5BACE62D CC4769F2
```

t=24: 4984FA79 A4195B91 F13AE55B D44DC81A A530D939 EDDBD6ED 966AA287 5BACE62D t=25: AA6CB982 4984FA79 A4195B91 F13AE55B 0B5EEEA4 A530D939 EDDBD6ED 966AA287 t=26: 9450FBBC AA6CB982 4984FA79 A4195B91 09166DDA 0B5EEEA4 A530D939 EDDBD6ED t=27: 0D936BAB 9450FBBC AA6CB982 4984FA79 6E495D4B 09166DDA 0B5EEEA4 A530D939

```
t=28: D958B529 0D936BAB 9450FBBC AA6CB982 C2FA99B1 6E495D4B 09166DDA 0B5EEEA4
t=29: 1CFA5EB0 D958B529 0D936BAB 9450FBBC 6C49DB9F C2FA99B1 6E495D4B 09166DDA
t=30: 02EF3A5F 1CFA5EB0 D958B529 0D936BAB 5DA10665 6C49DB9F C2FA99B1 6E495D4B
t=31: B0EAB1C5 02EF3A5F 1CFA5EB0 D958B529 F6D93952 5DA10665 6C49DB9F C2FA99B1
t=32: 0BFBA73C B0EAB1C5 02EF3A5F 1CFA5EB0 8B99E3A9 F6D93952 5DA10665 6C49DB9F
t=33: 4BD1DF96 0BFBA73C B0EAB1C5 02EF3A5F 905E44AC 8B99E3A9 F6D93952 5DA10665
t=34: 9907F1B6 4BD1DF96 0BFBA73C B0EAB1C5 66C3043D 905E44AC 8B99E3A9 F6D93952
t=35: ECDE4E0D 9907F1B6 4BD1DF96 0BFBA73C 5DC119E6 66C3043D 905E44AC 8B99E3A9
t=36: 2F11C939 ECDE4E0D 9907F1B6 4BD1DF96 FED4CE1D 5DC119E6 66C3043D 905E44AC
t=37: D949682B 2F11C939 ECDE4E0D 9907F1B6 32D99008 FED4CE1D 5DC119E6 66C3043D
t=38: ADCA7A96 D949682B 2F11C939 ECDE4E0D C6CCE4FF 32D99008 FED4CE1D 5DC119E6
t=39: 221B8A5A ADCA7A96 D949682B 2F11C939 0B82C5EB C6CCE4FF 32D99008 FED4CE1D
t=40: 12D97845 221B8A5A ADCA7A96 D949682B E4213CA2 0B82C5EB C6CCE4FF 32D99008
t=41: 2C794876 12D97845 221B8A5A ADCA7A96 FF6759BA E4213CA2 0B82C5EB C6CCE4FF
t=42: 8300FCA2 2C794876 12D97845 221B8A5A E0E3457C FF6759BA E4213CA2 0B82C5EB
t=43: F2AD6322 8300FCA2 2C794876 12D97845 CC48C7F3 E0E3457C FF6759BA E4213CA2
t=44: 0F154E11 F2AD6322 8300FCA2 2C794876 6F9517CB CC48C7F3 E0E3457C FF6759BA
t=45: 104A7DB4 0F154E11 F2AD6322 8300FCA2 5348E8F6 6F9517CB CC48C7F3 E0E3457C
t=46: 0B3303A7 104A7DB4 0F154E11 F2AD6322 BBE1C39A 5348E8F6 6F9517CB CC48C7F3
t=47: D7354D5B 0B3303A7 104A7DB4 0F154E11 AAD55B6B BBE1C39A 5348E8F6 6F9517CB
t=48: B736D7A6 D7354D5B 0B3303A7 104A7DB4 68F25260 AAD55B6B BBE1C39A 5348E8F6
t=49: 2748E5EC B736D7A6 D7354D5B 0B3303A7 D4B58576 68F25260 AAD55B6B BBE1C39A
t=50: D8AABCF9 2748E5EC B736D7A6 D7354D5B 27844711 D4B58576 68F25260 AAD55B6B
t=51: 1A6BCF6A D8AABCF9 2748E5EC B736D7A6 FF5E99D0 27844711 D4B58576 68F25260
t=52: 4ECA6FA0 1A6BCF6A D8AABCF9 2748E5EC 989ED071 FF5E99D0 27844711 D4B58576
t=53: EC02560A 4ECA6FA0 1A6BCF6A D8AABCF9 7151DF8E 989ED071 FF5E99D0 27844711
t=54: D9F0C115 EC02560A 4ECA6FA0 1A6BCF6A 624150C4 7151DF8E 989ED071 FF5E99D0
t=55: 92952710 D9F0C115 EC02560A 4ECA6FA0 226806D6 624150C4 7151DF8E 989ED071
t=56: 20D4D0E4 92952710 D9F0C115 EC02560A 4E515A4D 226806D6 624150C4 7151DF8E
t=57: 4348EB1F 20D4D0E4 92952710 D9F0C115 C21EDDF9 4E515A4D 226806D6 624150C4
t=58: 286FE5F0 4348EB1F 20D4D0E4 92952710 54076664 C21EDDF9 4E515A4D 226806D6
t=59: 1C4CDDD9 286FE5F0 4348EB1F 20D4D0E4 F487A853 54076664 C21EDDF9 4E515A4D
t=60: A9F181DD 1C4CDDD9 286FE5F0 4348EB1F 27CCB387 F487A853 54076664 C21EDDF9
t=61: B25CEF29 A9F181DD 1C4CDDD9 286FE5F0 2AA1BB13 27CCB387 F487A853 54076664
t=62: 908C2123 B25CEF29 A9F181DD 1C4CDDD9 9A392956 2AA1BB13 27CCB387 F487A853
t=63: 9EA7148B 908C2123 B25CEF29 A9F181DD 2C5C4ED0 9A392956 2AA1BB13 27CCB387
H[0] = 85E655D6 + 9EA7148B = 248D6A61
H[1] = 417A1795 + 908C2123 = D20638B8
H[2] = 3363376A + B25CEF29 = E5C02693
H[3] = 624CDE5C + A9F181DD = 0C3E6039
H[4] = 76E09589 + 2C5C4ED0 = A33CE459
H[5] = CAC5F811 + 9A392956 = 64FF2167
H[6] = CC4B32C1 + 2AA1BB13 = F6ECEDD4
H[7] = F20E533A + 27CCB387 = 19DB06C1
______
```

Message Digest is

248D6A61 D20638B8 E5C02693 0C3E6039 A33CE459 64FF2167 F6ECEDD4 19DB06C1