

###

Elliptic Curve Digital Signature Algorithm

Curve: B-409

Hash Algorithm: SHA3-384

Message to be signed: "Example of ECDSA with B-409"

###

Signature Generation

H:

8303597DE5407E096050FDC7C95AC28083474B7572BB5895240A6F87DD5
E2F7D89E1F5F8DF648D101974BB0B8610A449

E:

8303597DE5407E096050FDC7C95AC28083474B7572BB5895240A6F87DD5
E2F7D89E1F5F8DF648D101974BB0B8610A449

K:

6A0B81D9320B5C305D730B1C1E74B03FAFB88A7EC355990B75F9B70E853
2433296A32492CBA06F8583D5B19C5B8C5D6D07EC

K_{inv} :

A202EA455D0E1A5EF09054B39259C768DB76FFD1A77B6281FC7056A4A23
A1012CDD604E4D7993E0D9EDD422DEFD782C1225A1A

R_x :

1F3E4DA3101C64239D76831995C0EC1E56CE4690C42DDD53DBF3EF725D8
19DF090B8632F327499B5B99C280D7F410CD7105C8DB

R_y :

122C8D8E5BEEC67621FF662D16D96845ADD77930A1096913CFFC984E97D
A8E7351F73AC33BEAD2C2FA5B3049FC53FCF38160AF5

R:

F3E4DA3101C64239D76831995C0EC1E56CE4690C42DDD53DBF3D147B017
3CC15D87E749382CD5EBD9492FD568F43959763B768

D:

4AF896DB379ABDF70C8FADE9EBD28CD530F2ECB336B4DE84BD6E065EF56
C8C548C532D00FA55CA8ACF3E98ADBCA9F78D241B

S:
58961D556202AFCC840235F736D27F1B4EEC64DFAD18F5450963C75DCB8
28E68E80425365031E36BFEBBD14320757C594DBBDD

Signature

R:
F3E4DA3101C64239D76831995C0EC1E56CE4690C42DDD53DBF3D147B017
3CC15D87E749382CD5EBD9492FD568F43959763B768

S:
58961D556202AFCC840235F736D27F1B4EEC64DFAD18F5450963C75DCB8
28E68E80425365031E36BFEBBD14320757C594DBBDD

=====
==

Signature Verification

Q_x:
<1951C5E41607E9317F247D49A389D0E120F479D47737543098AE5E1BB6
2BD59DE70E1C584AE655C702D39DD4F7883E1876C4A9B>

Q_y:
<16B16B98A3353D75BEB4D3576C64568BA381463CF77D4AEB85218D2D54
6E7A1EE3AB9316D8C7DF00D155B7891B2C0BF4B5E942E>

H:
<8303597DE5407E096050FDC7C95AC28083474B7572BB5895240A6F87DD
5E2F7D89E1F5F8DF648D101974BB0B8610A449>

E:
<8303597DE5407E096050FDC7C95AC28083474B7572BB5895240A6F87DD
5E2F7D89E1F5F8DF648D101974BB0B8610A449>

Sinv:
<1A258A0DDA1C88AF3B33DC9F0CD18B8D57EF571AE5210CA7AACF48C44C
BDCA0B64F9E1CA59FB88F8BD27F40058A65D7B3FD32D>

U:
<D5073882726DD87E7483A55E15791AA0B0CEB17983D1F64ACF5BAE24C9
11553477BEB2E92004A2FB3CC48F85855ADCD5A7E9>

V:
<FD9C0A865ECCE1250330A7CAEECD0F767C9767AE8F539BDB646F8AE7EF
55134D77EAE82072CDDDB2C0A64CDFDD1CD843BB74C56>

Rprime.X:

**<1F3E4DA3101C64239D76831995C0EC1E56CE4690C42DDD53DBF3EF725D
819DF090B8632F327499B5B99C280D7F410CD7105C8DB>**

Rprime.Y:

**<122C8D8E5BEEC67621FF662D16D96845ADD77930A1096913CFFC984E97
DA8E7351F73AC33BEAD2C2FA5B3049FC53FCF38160AF5>**

Rprime:

**<F3E4DA3101C64239D76831995C0EC1E56CE4690C42DDD53DBF3D147B01
73CC15D87E749382CD5EBD9492FD568F43959763B768>**

Verification Passed!