

SBCM Lab 2 Єроров ΦI-03

Extended gcd:

Num1 =

```
3A7EF2554E8940FA9B93B2A5E822CC7BB262F4A14159E4318CAE3ABF5AEB1022EC6D01DEFAB
48B528868679D649B445A753684C13F6C3ADBAB059D635A2882090FC166EA9F0AAACD16A062
149E4A0952F7FAAB14A0E9D3CB0BE9200DBD3B0342496421826919148E617AF1DB66978B1FC
D28F8408506B79979CCBCC7F7E5FDE7
```

Num2 =

```
D4D2110984907B5625309D956521BAB4157B8B1ECE04043249A3D379AC112E5B9AF44E721E1
48D88A942744CF56A06B92D28A0DB950FE4CED2B41A0BD38BCE7D0BE1055CF5DE38F2A588C2
C9A79A75011058C320A7B661C6CE1C36C7D870758307E5D2CF07D9B6E8D529779B6B2910DD1
7B6766A7EFEE215A98CAC300F2827DB
```

Output:

```
[
  '1',
  '746B6284C710AE792153F63964903731CA75CB70EE3CCECF2FEF5C3266A30B47190200833CAA60F9DD070F3E4FE8C43B39CDAB793AF4209DEE4FFFCFE2D6D4E13B82A87D5B301AAD391A3E6
229DC9EE850C39A497A2276902458F76ED574F5E68B75E67A8340BA2D2C16B2320671AEC72604267AC3847F2A0486A064C24D5FFA9CE5FEBA6A1BC4814AEA0DC611B7CB5961E4FFB2CAE151E910
9794A381121611E56289131B68EA',
  '1D1AD8A131C42B9E4854FD8E59240DCC729D72DC3B8F33B3F0BFBD70C99A8C2D1C6408020CF2A983E7741C3CF93FA310ECE736ADEBCD76DFC1908C250BCA147B7F9D05D9EBC9258BA6D8A3DB
6EDDEC53AFB300FA1DAFADB3D7084FD4FF88DD686FC82ED1F89264626F6E9CEF8595CE0A5C7B34059CEE56B103E08ECCD28AA75386ED76E1EB942A62AFEB3425F9A224ECECF5DC45C8B88545C5F8
E786EC149E7AA0633C707C899FFB'
]
```

Time:

3.621s

LCM:

Num1 =

```
3A7EF2554E8940FA9B93B2A5E822CC7BB262F4A14159E4318CAE3ABF5AEB1022EC6D01DEFAB
48B528868679D649B445A753684C13F6C3ADBAB059D635A2882090FC166EA9F0AAACD16A062
149E4A0952F7FAAB14A0E9D3CB0BE9200DBD3B0342496421826919148E617AF1DB66978B1FC
D28F8408506B79979CCBCC7F7E5FDE7
```

Num2 =

```
170076B15F9575D21DE39D5C429799BBCDDB867016DE2248E3CFDE73A4D70C8636A9E41ABE6
71E7B9FB4739A5FF64DF9D0D3A64E0C9B20BFE58F1C62B28477EE9FD202010BAC440ADF3CA0
16A32DB844F23DEC2AB93AE869A6262FC23C5CE419807CDBA930A5433884E3B34B22477289B
D3A7712CDD4B4110BD9887E7428FDF7
```

Output:

```
901F51C18D36F947B75D6C5350AB9F6AE29513445A360D284E5E14584470C7D0027DDAA3563DFED0A2A19178AEBABAFECA3D3910DCEFC22863F2DA499375900480A059866E1BF30C806B99F20BFC0092E37A6C49
B7866BBC8E98514F0D02AEB582B8C88B3D1EDDB7E33C5CABA976E98DF3EB399C2756D90AC8A77730F667D2B
```

Time:

1.873s

Mod add Barrett:

Num1 =

```
791EDB102DA183759979CEF70E1405AF14B98CD44357EADF6A8E35E49F99BB56CBD3F68897D
6E05502ED1DE14EC46D04F96992C2D129737987E84E62371648B37633794016852A8CBFFCFD
E06B17EC216AE8914D59E677A15A90361A594F0D1524A41AE63C59D343D4E522646722B0292
DD7C85571AC9A84FDA6CD2D8DE307F6
```

Num2 =

```
170076B15F9575D21DE39D5C429799BBCDDB867016DE2248E3CFDE73A4D70C8636A9E41ABE6
71E7B9FB4739A5FF64DF9D0D3A64E0C9B20BFE58F1C62B28477EE9FD202010BAC440ADF3CA0
16A32DB844F23DEC2AB93AE869A6262FC23C5CE419807CDBA930A5433884E3B34B22477289B
D3A7712CDD4B4110BD9887E7428FDF7
```

Modulo =

```
D4D2110984907B5625309D956521BAB4157B8B1ECE04043249A3D379AC112E5B9AF44E721E1
48D88A942744CF56A06B92D28A0DB950FE4CED2B41A0BD38BCE7D0BE1055CF5DE38F2A588C2
```

Output:

```
72CC64E13B7A4F8D4C8D68AF22D8337F04188D22928C658AC9EDE511C5A089AC756BE797FA801662329E5FFBEDA18483D800650DA705C4BE82884FD5D201E8411B8D52800F1A6F690296B
```

Time:

1.032s

Mod sub Barrett:

Num1 =

```
791EDB102DA183759979CEF70E1405AF14B98CD44357EADF6A8E35E49F99BB56CBD3F68897D
6E05502ED1DE14EC46D04F96992C2D129737987E84E62371648B37633794016852A8CBFFCFD
E06B17EC216AE8914D59E677A15A90361A594F0D1524A41AE63C59D343D4E522646722B0292
DD7C85571AC9A84FDA6CD2D8DE307F6
```

Num2 =

```
170076B15F9575D21DE39D5C429799BBCDDB867016DE2248E3CFDE73A4D70C8636A9E41ABE6
71E7B9FB4739A5FF64DF9D0D3A64E0C9B20BFE58F1C62B28477EE9FD202010BAC440ADF3CA0
16A32DB844F23DEC2AB93AE869A6262FC23C5CE419807CDBA930A5433884E3B34B22477289B
D3A7712CDD4B4110BD9887E7428FDF7
```

Modulo =

```
D4D2110984907B5625309D956521BAB4157B8B1ECE04043249A3D379AC112E5B9AF44E721E1
48D88A942744CF56A06B92D28A0DB950FE4CED2B41A0BD38BCE7D0BE1055CF5DE38F2A588C2
```

Output:

```
16E57F66812FE00EAD111664FC2D250400BC7C0BADC453E7061108218A2AF5B71EA2A5082F7AD9EAA7D0AD36F166605C22671FEFB3E6FB2938FE0D1191E142277D74A24F6C7E065A6458
```

Time:

711.706ms

Mod mul Barrett:

Num1 =

```
791EDB102DA183759979CEF70E1405AF14B98CD44357EADF6A8E35E49F99BB56CBD3F68897D
6E05502ED1DE14EC46D04F96992C2D129737987E84E62371648B37633794016852A8CBFFCFD
E06B17EC216AE8914D59E677A15A90361A594F0D1524A41AE63C59D343D4E522646722B0292
DD7C85571AC9A84FDA6CD2D8DE307F6
```

Num2 =

```
170076B15F9575D21DE39D5C429799BBCDDB867016DE2248E3CFDE73A4D70C8636A9E41ABE6
71E7B9FB4739A5FF64DF9D0D3A64E0C9B20BFE58F1C62B28477EE9FD202010BAC440ADF3CA0
16A32DB844F23DEC2AB93AE869A6262FC23C5CE419807CDBA930A5433884E3B34B22477289B
D3A7712CDD4B4110BD9887E7428FDF7
```

Modulo =

```
D4D2110984907B5625309D956521BAB4157B8B1ECE04043249A3D379AC112E5B9AF44E721E1
48D88A942744CF56A06B92D28A0DB950FE4CED2B41A0BD38BCE7D0BE1055CF5DE38F2A588C2
```

Output:

```
4650CA7A6B9ED812934DA0207D5E452F317030B5559EE2CE8220AE6F16773D910CE80E4BF0BD98E03C6023982737A9E8A97495F65EF658E1586665F8C70EE4FBF408431865D2FD42FCE9C86
```

Time:

1.415s

Mod pow Barrett:

Num1 =

```
791EDB102DA183759979CEF70E1405AF14B98CD44357EADF6A8E35E49F99BB56CBD3F68897D
6E05502ED1DE14EC46D04F96992C2D129737987E84E62371648B37633794016852A8CBFFCFD
E06B17EC216AE8914D59E677A15A90361A594F0D1524A41AE63C59D343D4E522646722B0292
DD7C85571AC9A84FDA6CD2D8DE307F6
```

Power =

```
170076B15F9575D21DE39D5C429799BBCDDB867016DE2248E3CFDE73A4D70C8636A9E41ABE6
71E7B9FB4739A5FF64DF9D0D3A64E0C9B20BFE58F1C62B28477EE9FD202010BAC440ADF3CA0
16A32DB844F23DEC2AB93AE869A6262FC23C5CE419807CDBA930A5433884E3B34B22477289B
D3A7712CDD4B4110BD9887E7428FDF7
```

Modulo =

```
D4D2110984907B5625309D956521BAB4157B8B1ECE04043249A3D379AC112E5B9AF44E721E1
48D88A942744CF56A06B92D28A0DB950FE4CED2B41A0BD38BCE7D0BE1055CF5DE38F2A588C2
```

Output:

```
A31560F0B8198E473EC10D152F8FF10B57FF71B6C4A8FF07342D2E143EDBE884CE38AE9E1285F7F80ED3B4943314E7B45F853EE1BBF3C9C12D0E099C02C882D9A3D873C1F644C14271B88C
```

Time:

35.167s