

Example: $p = 1283 = 2 \times 641 + 1$, $g = 24$

1. $k_1 = 67$, $x_1 = 24^{67} \pmod{1283} \equiv 98$
2. $k_2 = 95$, $x_2 = 24^{95} \pmod{1283} \equiv 933$
3. Exchange x_1 and x_2
4. $x_{1,2} = 933^{67} \pmod{1283} \equiv 135$
5. $x_{2,1} = 98^{95} \pmod{1283} \equiv 135$
6. Common Session key $e = 135$
7. $d = 19$.

Sender:

1. Let the message be INDIA IS MY COUNTRY
2. Block size $b = 2$, because $29^2 < 1283 < 29^3$
3. First block IN, $m = 245$
4. $c = 26$ i.e. ABA

Receiver:

1. Crypt received ABA i.e. 26
2. $m = 26^{19} \pmod{1283} = 245$ i.e. IN