

Public Key Exchange

Partner Alpha

Follow these steps to establish a secret key in public!

Step	Instruction	#	Value
1	Choose a secret integer, a , between 1 and 10, and write it down.	a	
2	Calculate $A = 5^a \bmod 13$ and write it down.	A	
3	Announce your value A to your partner.		
4	Write down the value B that your partner tells you.	B	
5	Calculate $s = B^a \bmod 13$, and write it down.	s	

Congratulations! You and your partner should now know the same secret number, s . Your eavesdroppers should not be able to determine the value of s .

Public Key Exchange

Partner Beta

Follow these steps to establish a secret key in public!

Step	Instruction	#	Value
1	Choose a secret integer, b , between 1 and 10, and write it down.	b	
2	Calculate $B = 5^b \bmod 13$ and write it down.	B	
3	Announce your value B to your partner.		
4	Write down the value A that your partner tells you.	A	
5	Calculate $s = A^b \bmod 13$, and write it down.	s	

Congratulations! You and your partner should now know the same secret number, s . Your eavesdroppers should not be able to determine the value of s .