

Tutorial - RSA Encryption Tool

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April 2025

1 KEY GENERATION

The screenshot displays the 'RSA Encryption Tool' interface. At the top, there are three tabs: 'Key Generation' (active, highlighted in blue), 'Encryption', and 'Decryption'. Below the tabs, the 'Generate RSA Keys' section is visible. It features a text input field containing the number '4'. A blue button labeled 'Generate Keys' is positioned below the input field. The results of the key generation are displayed in a white box with a light blue border. It shows the 'Public Key (n, e)' with 'n: 209' and 'e: 7', and the 'Private Key (n, d)' with 'n: 209' and 'd: 103'. Below this, the 'Mathematical Steps' section is visible, featuring a blue button labeled 'Show/Hide Steps'.

RSA Encryption Tool

Key Generation Encryption Decryption

Generate RSA Keys

4

Generate Keys

Public Key (n, e)
n: 209
e: 7

Private Key (n, d)
n: 209
d: 103

Mathematical Steps

Show/Hide Steps

Figure 1: RSA Key Generation Process

2 ENCRYPTION

RSA Encryption Tool

Key Generation **Encryption** Decryption

Encrypt Message

Hello

Encrypt

Ciphertext:

184,161,48,48,188

Show/Hide Encryption Steps

Figure 2: RSA Encryption Process

3 DECRYPTION

RSA Encryption Tool

Key Generation

Encryption

Decryption

Decrypt Message

184,161,48,48,188

Decrypt

Decrypted Message:

Hello

Show/Hide Decryption Steps

Figure 3: RSA Decryption Process