CodeCrackers Instruction Manual

Introduction

The Caesar cipher is a basic substitution cipher used by Julius Caesar to encrypt military messages. Each letter in the message is replaced by a letter a fixed number of positions down the alphabet. This manual covers how to use, break, and experiment with the Caesar cipher.

Step-by-Step Instructions

1. Choose a shift number between 1 and 25.
2. Align the alphabet to create a shifted version.
3. Replace each letter in your message with its shifted counterpart.
4. To decrypt, reverse the shift using the same key.

Alphabet Mapping Diagram (Shift +3 Example)

Encryption Example

```
Plaintext : DEFEND THE EAST WALL
Shift     : +5
Ciphertext: IJKJSI YMJ JFXY BFQQ
```

Decryption Example

```
Ciphertext: OLSSV
Shift     : -7
Plaintext : HELLO
```

Practice Problems

Use the Caesar cipher technique to encrypt or decrypt the following:

```
1. Encrypt with Shift +4:    ZEBRAS
2. Encrypt with Shift +9:    PYTHON
3. Decrypt with Shift -23:   EBIIL
4. Decrypt with Shift -13:   FRPERG
```

Answers

```
1. DIFVEW
2. YHIBXW
3. HELLO
4. SECRET
```

Troubleshooting

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- Check your alphabet alignment.
- Make sure you wrap from Z to A if needed.
- Remember: Decryption uses the same shift but in reverse.
- Try ROT13 (Shift 13) if you want a built-in reversible method.