**HTD – High Technology Day: Caesar Shift**

Substitution Cipher: A cipher in which letters change during encryption

In [cryptography](https://en.wikipedia.org/wiki/Cryptography), a **Caesar cipher**, also known as **Caesar's cipher**, the **shift cipher**, **Caesar's code** or **Caesar shift**, is one of the simplest and most widely known [encryption](https://en.wikipedia.org/wiki/Encryption) techniques. It is a type of [substitution cipher](https://en.wikipedia.org/wiki/Substitution_cipher) in which each letter in the [plaintext](https://en.wikipedia.org/wiki/Plaintext) is replaced by a letter some fixed number of positions down the [alphabet](https://en.wikipedia.org/wiki/Alphabet). For example, with a left shift of 3, D would be replaced by A, E would become B, and so on. The method is named after [Julius Caesar](https://en.wikipedia.org/wiki/Julius_Caesar), who used it in his private correspondence. Source: wikipedia.org/wiki/Caesar\_cipher

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| **EXAMPLE**  Shift Key: Right-Shift 3  Replace the current letter with one 3 letters to the right   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **A** | **B** | **C** | **D** | **E** | **F** | **G** | **H** | **I** | **J** | **K** | **L** | **M** | **N** | **O** | **P** | **Q** | **R** | **S** | **T** | **U** | **V** | **W** | **X** | **Y** | **Z** | | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | |

# ENCRYPTION EXERCISE:

To Encrypt, Right Shift 3:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| I |  | C | A | N | N | O | T |  | W | A | I | T |  | T | O |  | P | R | O | G | R | A | M |  | W | I | T | H |  | M | I | C | R | O | B | I | T |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

To Encrypt, Left Shift 7:

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| T | E | C | H | N | O | L | O | G | Y |  | I | S |  | F | U | N |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

# DECRYPTION EXERCISE:

To Decrypt, Left Shift 3:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Z | H | O | F | R | P | H |  | W | R |  | K | L | J | K |  | W | H | F | K | Q | R | O | R | J | B |  | G | D | B |  | D | W |  | D | W | W |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

To Decrypt, Right Shift 10:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| B | U | J | ‘ | I |  | F | B | Q | O |  | Q |  | W | Q | C | U | ! |
|  |  |  | ‘ |  |  |  |  |  |  |  |  |  |  |  |  |  | ! |