|  | A | B | C | D | E | F | G | H | I | J | K | L | M | N | 0 | P | Q | R | S | T | U | V | W | X | Y | Z |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | A | B | C | D | E | F | G | H | I | J | K | L | M | N | 0 | P | Q | R | S | T | U | V | W | X | Y | Z |
| B | B | C | D | E | F | G | H | I | J | K | L | M | N | 0 | P | Q | R | S | T | U | V | W | X | Y | Z | A |
| C | C | D | E | F | G | H | I | J | K | L | M | N | $\bigcirc$ | P | Q | R | S | T | U | V | W | X | Y | Z | A | B |
| D | D | E | F | G | H | I | J | K | L | M | N | 0 | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C |
| E | E | F | G | H | I | J | K | L | M | N | 0 | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D |
| F | F | G | H | I | J | K | L | M | N | 0 | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E |
| G | G | H | I | J | K | L | M | N | 0 | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F |
| H | H | I | J | K | L | M | N | 0 | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G |
| I | I | J | K | L | M | N | 0 | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H |
| J | J | K | L | M | N | $\bigcirc$ | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I |
| K | K | L | M | N | 0 | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J |
| L | L | M | N | 0 | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K |
| M | M | N | 0 | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L |
| N | N | 0 | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M |
| 0 | $\bigcirc$ | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N |
| P | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | 0 |
| Q | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | 0 | P |
| R | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | 0 | P | Q |
| S | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | 0 | P | Q | R |
| T | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | 0 | P | Q | R | S |
| U | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | 0 | P | Q | R | S | T |
| V | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | 0 | P | Q | R | S | T | U |
| W | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | 0 | P | Q | R | S | T | U | V |
| X | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | 0 | P | Q | R | S | T | U | V | W |
| Y | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | 0 | P | Q | R | S | T | U | V | W | X |
| Z | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | 0 | P | Q | R | S | T | U | V | W | X | Y |


| A | $\mathbf{B}$ | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | $\mathbf{X}$ | $\mathbf{Y}$ | Z |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0}$ | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |


| 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Z | Y | X | W | V | U | T | S | R | Q | P | O | N | M | L | K | J | I | H | G | F | E | D | C | B | A |


| 1 | 3 | 5 | 7 | 9 | 11 | 15 | 17 | 19 | 21 | 23 | 25 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 9 | 21 | 15 | 3 | 19 | 7 | 23 | 11 | 5 | 17 | 25 |


| AAAAA | A | AABBA | G | ABBAA | N | BAABA | T |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AAAAB | B | AABBB | H | ABBAB | 0 | BAABB | U/V |
| AAABA | C | ABAAA | I / J | ABBBA | P | BABAA | W |
| AAABB | D | ABAAB | K | ABBBB | Q | BABAB | X |
| AABAA | E | ABABA | L | BAAAA | R | BABBA | Y |
| AABAB | F | ABABB | M | BAAAB | S | BABBB | Z |

## Frequency Table of English letters:

| E | - | 12.51\% | S | - | $6.54 \%$ | C | - | 3.06\% | G | - | 1.96\% | K | - | $0.67 \%$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T | - | 9.25\% | R | - | $6.12 \%$ | U | - | $2.71 \%$ | W | - | 1.92\% | X | - | $0.19 \%$ |
| A | - | $8.04 \%$ | H | - | 5.49\% | M | - | $2.53 \%$ | Y | - | 1.73\% | J | - | $0.16 \%$ |
| 0 | - | $7.60 \%$ | L |  | 4.14\% | F | - | $2.30 \%$ | B | - | 1.54\% | Q | - | $0.11 \%$ |
| I | - | $7.26 \%$ | D | - | 3.99\% | P | - | $2.00 \%$ | V | - | $0.99 \%$ | Z | - | $0.09 \%$ |
| N | - | $7.09 \%$ |  |  |  |  |  |  |  |  |  |  |  |  |

## Frequency Table of Spanish letters:



For the purposes of cryptograms it is customary to treat $n$ and $n$ as distinct letters, but a and á are the same letter. Likewise for e and é, and i and í. In other words, all the accent marks get amputated when working with cryptograms. Also, while some older Spanish dictionaries consider ch, II, and rr, to be their own letters-this has fallen out of modern usage. Accordingly, "burro" is considered as five letters: "b-u-r-r-o" and not as four letters "b-u-rr-o."

## Morse Code:

| $A$ | $\bullet-$ |
| ---: | :--- |
| $B$ | $-\bullet \bullet \bullet$ |
| $C$ | $-\bullet \bullet$ |
| $D$ | $-\bullet \bullet$ |
| $E$ | $\bullet$ |


| $F$ | $\bullet \bullet-\bullet$ |
| ---: | :--- |
| $G$ | $--\bullet$ |
| $H$ | $\bullet \bullet \bullet \bullet$ |
| I | $\bullet \bullet$ |
| J | $\bullet---$ |


| K | $-\bullet-$ |
| ---: | :--- |
| L | $\bullet-\bullet \bullet$ |
| M | -- |
| N | $-\bullet$ |
| O | --- |


| $P$ | $\bullet--\bullet$ |
| :--- | :--- |
| $Q$ | $--\bullet-$ |
| $R$ | $\bullet-\bullet$ |
| $S$ | $\bullet \bullet \bullet$ |
| $T$ | - |


| U | $\bullet \bullet-$ |
| ---: | :--- |
| V | $\bullet \bullet \bullet-$ |
| W | $\bullet--$ |
| X | $-\bullet \bullet-$ |
| Y | $-\bullet--$ |
| Z | $--\bullet \bullet$ |


| 0 | ----- |
| :--- | :--- |
| 1 | $\bullet----$ |


| 2 | $\bullet \bullet---$ |
| :--- | :--- |
| 3 | $\bullet \bullet \bullet--$ |


| 4 | $\bullet \bullet \bullet \bullet-$ |
| ---: | :--- |
| 5 | $\bullet \bullet \bullet \bullet \bullet$ |


| 6 | $-\bullet \bullet \bullet \bullet$ |
| :--- | :--- |
| 7 | $--\bullet \bullet \bullet$ |


| 8 | $---\bullet \bullet$ |
| :--- | :--- |
| 9 | $----\bullet$ |



