|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Base 10 | Binary | Letter | Base 10 | Binary | Letter | Base 10 | Binary | Letter | Base  10 | Binary | Letter |
| 0 | 00000000 | A | 18 | 00010011 | Kw | 36 | 00100110 | W | 54 | 00111001 | U |
| 1 | 00000001 | B | 19 | 00010100 | L | 37 | 00100111 | X | 55 | 00111010 | Ú |
| 2 | 00000010 | C | 20 | 00010101 | L | 38 | 00101000 | Y | 56 | 00111011 |  |
| 3 | 00000011 | Ch | 21 | 00010110 | M | 39 |  | Z | 57 | 00111100 |  |
| 4 | 00000100 | Ch’ | 22 | 00010111 | N | 40 | 00101010 | Zh | 58 | 00111101 |  |
| 5 | 00000101 | D | 23 | 00011000 | O | 41 | 00101011 | Á | 59 | 00111110 |  |
| 6 | 00000110 | Dl | 24 | 00011001 | P | 42 | 00101100 | A | 60 | 00111111 |  |
| 7 |  | Dz | 25 | 00011010 | Q | 43 | 00101101 | Á | 61 | 01000000 |  |
| 8 | 00001000 | E | 26 | 00011011 | R | 44 | 00101110 | É | 62 | 01000001 |  |
| 9 | 00001001 | F | 27 |  | S | 45 | 00101111 | E | 63 | 01000010 |  |
| 10 | 00001010 | G | 28 | 00011101 | Sh | 46 | 00110000 | É | 64 | 01000011 |  |
| 11 | 00001011 | Gh | 29 | 00011111 | T | 47 | 00110001 | Í | 65 | 01000100 |  |
| 12 | 00001100 | H | 30 | 00100000 | T’ | 48 | 00110010 | Į | 66 | 01000101 |  |
| 13 | 00001101 | Hw | 31 | 00100001 | Tl | 49 | 00110011 | Į | 67 | 01000110 |  |
| 14 | 00001111 | I | 32 | 00100010 | Tl’ | 50 | 00110100 | Ó | 68 | 01000111 |  |
| 15 | 00010000 | J | 33 | 00100011 | Ts | 51 | 00110101 | O | 69 | 01001000 |  |
| 16 | 00010001 | K | 34 | 00100100 | U | 52 | 00110111 | Ó | 70 | 01001001 |  |
| 17 | 00010010 | K’ | 35 | 00100101 | V | 53 | 00111000 | Ú | 72 | 01001011 |  |

Instructions

1. Fill the missing binary values with the proper binary string.
2. Write out a word you want to spell.
3. Match each letter in the word to it’s matching binary string and write out the full binary string.
4. On a string with a knot, string one yellow bead.
5. Using black beads for 1’s and white beads for 0’s in the binary string, string white and black beans according to the binary string patter you just wrote out.
6. When you finish beading out the binary string, string a red bead to indicate that you are finished with you word. You can now tie a not or you can string a yellow bead and start beading a new word.