**list of all 128 standard ASCII characters and their corresponding decimal, hexadecimal, and character representations:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Decimal** | **Hex** | **Character** | **Description** |
| 0 | 00 | NUL | Null |
| 1 | 01 | SOH | Start of Heading |
| 2 | 02 | STX | Start of Text |
| 3 | 03 | ETX | End of Text |
| 4 | 04 | EOT | End of Transmission |
| 5 | 05 | ENQ | Enquiry |
| 6 | 06 | ACK | Acknowledge |
| 7 | 07 | BEL | Bell |
| 8 | 08 | BS | Backspace |
| 9 | 09 | TAB | Horizontal Tab |
| 10 | 0A | LF | Line Feed (New Line) |
| 11 | 0B | VT | Vertical Tab |
| 12 | 0C | FF | Form Feed |
| 13 | 0D | CR | Carriage Return |
| 14 | 0E | SO | Shift Out |
| 15 | 0F | SI | Shift In |
| 16 | 10 | DLE | Data Link Escape |
| 17 | 11 | DC1 | Device Control 1 |
| 18 | 12 | DC2 | Device Control 2 |
| 19 | 13 | DC3 | Device Control 3 |
| 20 | 14 | DC4 | Device Control 4 |
| 21 | 15 | NAK | Negative Acknowledge |
| 22 | 16 | SYN | Synchronous Idle |
| 23 | 17 | ETB | End of Block |
| 24 | 18 | CAN | Cancel |
| 25 | 19 | EM | End of Medium |
| 26 | 1A | SUB | Substitute |
| 27 | 1B | ESC | Escape |
| 28 | 1C | FS | File Separator |
| 29 | 1D | GS | Group Separator |
| 30 | 1E | RS | Record Separator |
| 31 | 1F | US | Unit Separator |
| 32 | 20 | (space) | Space |
| 33 | 21 | ! | Exclamation Mark |
| 34 | 22 | " | Double Quote |
| 35 | 23 | # | Hash |
| 36 | 24 | $ | Dollar Sign |
| 37 | 25 | % | Percent |
| 38 | 26 | & | Ampersand |
| 39 | 27 | ' | Single Quote |
| 40 | 28 | ( | Left Parenthesis |
| 41 | 29 | ) | Right Parenthesis |
| 42 | 2A | \* | Asterisk |
| 43 | 2B | + | Plus Sign |
| 44 | 2C | , | Comma |
| 45 | 2D | - | Minus Sign |
| 46 | 2E | . | Period |
| 47 | 2F | / | Slash |
| 48 | 30 | 0 | Digit 0 |
| 49 | 31 | 1 | Digit 1 |
| 50 | 32 | 2 | Digit 2 |
| 51 | 33 | 3 | Digit 3 |
| 52 | 34 | 4 | Digit 4 |
| 53 | 35 | 5 | Digit 5 |
| 54 | 36 | 6 | Digit 6 |
| 55 | 37 | 7 | Digit 7 |
| 56 | 38 | 8 | Digit 8 |
| 57 | 39 | 9 | Digit 9 |
| 58 | 3A | : | Colon |
| 59 | 3B | ; | Semicolon |
| 60 | 3C | < | Less Than |
| 61 | 3D | = | Equals |
| 62 | 3E | > | Greater Than |
| 63 | 3F | ? | Question Mark |
| 64 | 40 | @ | At Symbol |
| 65 | 41 | A | Uppercase A |
| 66 | 42 | B | Uppercase B |
| 67 | 43 | C | Uppercase C |
| 68 | 44 | D | Uppercase D |
| 69 | 45 | E | Uppercase E |
| 70 | 46 | F | Uppercase F |
| 71 | 47 | G | Uppercase G |
| 72 | 48 | H | Uppercase H |
| 73 | 49 | I | Uppercase I |
| 74 | 4A | J | Uppercase J |
| 75 | 4B | K | Uppercase K |
| 76 | 4C | L | Uppercase L |
| 77 | 4D | M | Uppercase M |
| 78 | 4E | N | Uppercase N |
| 79 | 4F | O | Uppercase O |
| 80 | 50 | P | Uppercase P |
| 81 | 51 | Q | Uppercase Q |
| 82 | 52 | R | Uppercase R |
| 83 | 53 | S | Uppercase S |
| 84 | 54 | T | Uppercase T |
| 85 | 55 | U | Uppercase U |
| 86 | 56 | V | Uppercase V |
| 87 | 57 | W | Uppercase W |
| 88 | 58 | X | Uppercase X |
| 89 | 59 | Y | Uppercase Y |
| 90 | 5A | Z | Uppercase Z |
| 91 | 5B | [ | Left Bracket |
| 92 | 5C | \ | Backslash |
| 93 | 5D | ] | Right Bracket |
| 94 | 5E | ^ | Caret |
| 95 | 5F | \_ | Underscore |
| 96 | 60 | ` | Grave Accent |
| 97 | 61 | a | Lowercase a |
| 98 | 62 | b | Lowercase b |
| 99 | 63 | c | Lowercase c |
| 100 | 64 | d | Lowercase d |
| 101 | 65 | e | Lowercase e |
| 102 | 66 | f | Lowercase f |
| 103 | 67 | g | Lowercase g |
| 104 | 68 | h | Lowercase h |
| 105 | 69 | i | Lowercase i |
| 106 | 6A | j | Lowercase j |
| 107 | 6B | k | Lowercase k |
| 108 | 6C | l | Lowercase l |
| 109 | 6D | m | Lowercase m |
| 110 | 6E | n | Lowercase n |
| 111 | 6F | o | Lowercase o |
| 112 | 70 | p | Lowercase p |
| 113 | 71 | q | Lowercase q |
| 114 | 72 | r | Lowercase r |
| 115 | 73 | s | Lowercase s |
| 116 | 74 | t | Lowercase t |
| 117 | 75 | u | Lowercase u |
| 118 | 76 | v | Lowercase v |
| 119 | 77 | w | Lowercase w |
| 120 | 78 | x | Lowercase x |
| 121 | 79 | y | Lowercase y |
| 122 | 7A | z | Lowercase z |
| 123 | 7B | { | Left Brace |
| 124 | 7C | | | Vertical Bar |
| 125 | 7D | } | Right Brace |
| 126 | 7E | ~ | Tilde |
| 127 | 7F | DEL | Delete |