

Código binario

Actividad escribir los siguientes mensajes en código binario.

1. “Empezamos el técnico en la Universidad Galileo.”

Carácter	Decimal	Binario
E	69	$\frac{69}{2} = 1, \frac{34}{2} = 0, \frac{17}{2} = 1, \frac{8}{2} = 0, \frac{4}{2} = 0, \frac{2}{2} = 0, \frac{1}{2} = 1. \text{Bin} = 01000101$
G	71	$\frac{71}{2} = 1, \frac{35}{2} = 1, \frac{17}{2} = 1, \frac{8}{2} = 0, \frac{4}{2} = 0, \frac{2}{2} = 0, \frac{1}{2} = 1. \text{Bin} = 01000111$
U	85	$\frac{85}{2} = 1, \frac{42}{2} = 0, \frac{21}{2} = 1, \frac{10}{2} = 0, \frac{5}{2} = 1, \frac{2}{2} = 0, \frac{1}{2} = 1. \text{Bin} = 01010101$
a	97	$\frac{97}{2} = 1, \frac{48}{2} = 0, \frac{24}{2} = 0, \frac{12}{2} = 0, \frac{6}{2} = 0, \frac{3}{2} = 1, \frac{2}{2} = 0, \frac{1}{2} = 1. \text{Bin} = 10100001$
c	99	$\frac{99}{2} = 1, \frac{49}{2} = 1, \frac{24}{2} = 0, \frac{12}{2} = 0, \frac{6}{2} = 0, \frac{3}{2} = 1, \frac{2}{2} = 0, \frac{1}{2} = 1. \text{Bin} = 10100011$
d	100	$\frac{100}{2} = 0, \frac{50}{2} = 0, \frac{25}{2} = 1, \frac{12}{2} = 0, \frac{6}{2} = 0, \frac{3}{2} = 1, \frac{1}{2} = 1. \text{Bin} = 01100100$
e	101	$\frac{101}{2} = 1, \frac{50}{2} = 0, \frac{25}{2} = 1, \frac{12}{2} = 0, \frac{6}{2} = 0, \frac{3}{2} = 1, \frac{1}{2} = 1. \text{Bin} = 01100101$
i	105	$\frac{105}{2} = 1, \frac{52}{2} = 0, \frac{26}{2} = 0, \frac{13}{2} = 1, \frac{6}{2} = 0, \frac{3}{2} = 1, \frac{1}{2} = 1. \text{Bin} = 01101001$
l	108	$\frac{108}{2} = 0, \frac{54}{2} = 0, \frac{27}{2} = 1, \frac{13}{2} = 1, \frac{6}{2} = 0, \frac{3}{2} = 1, \frac{1}{2} = 1. \text{Bin} = 01101100$
m	109	$\frac{109}{2} = 1, \frac{54}{2} = 0, \frac{27}{2} = 1, \frac{13}{2} = 1, \frac{6}{2} = 0, \frac{3}{2} = 1, \frac{1}{2} = 1. \text{Bin} = 01101101$
n	110	$\frac{110}{2} = 0, \frac{55}{2} = 1, \frac{27}{2} = 1, \frac{13}{2} = 1, \frac{6}{2} = 0, \frac{3}{2} = 1, \frac{1}{2} = 1. \text{Bin} = 01101110$
p	112	$\frac{112}{2} = 0, \frac{56}{2} = 0, \frac{28}{2} = 0, \frac{14}{2} = 0, \frac{7}{2} = 1, \frac{3}{2} = 1, \frac{1}{2} = 1. \text{Bin} = 01110000$
r	114	$\frac{114}{2} = 0, \frac{57}{2} = 1, \frac{28}{2} = 0, \frac{14}{2} = 0, \frac{7}{2} = 1, \frac{3}{2} = 1, \frac{1}{2} = 1. \text{Bin} = 01110010$
s	115	$\frac{115}{2} = 1, \frac{57}{2} = 1, \frac{28}{2} = 0, \frac{14}{2} = 0, \frac{7}{2} = 1, \frac{3}{2} = 1, \frac{1}{2} = 1. \text{Bin} = 01110011$
t	116	$\frac{116}{2} = 0, \frac{58}{2} = 0, \frac{29}{2} = 1, \frac{14}{2} = 0, \frac{7}{2} = 1, \frac{3}{2} = 1, \frac{1}{2} = 1. \text{Bin} = 01110100$

v	118	$\frac{118}{2} = 0, \frac{59}{2} = 1, \frac{29}{2} = 1, \frac{14}{2} = 0, \frac{7}{2} = 1, \frac{3}{2} = 1, \frac{1}{2} = 1.$ Bin = 01110110
z	122	$\frac{122}{2} = 0, \frac{61}{2} = 1, \frac{30}{2} = 0, \frac{15}{2} = 1, \frac{7}{2} = 1, \frac{3}{2} = 1, \frac{1}{2} = 1.$ Bin = 01111010
é	233	$\frac{233}{2} = 1, \frac{116}{2} = 0, \frac{58}{2} = 0, \frac{29}{2} = 1, \frac{14}{2} = 0, \frac{7}{2} = 1, \frac{3}{2} = 1, \frac{1}{2} = 1.$ Bin = 11101001
espacio	32	$\frac{32}{2} = 0, \frac{16}{2} = 0, \frac{8}{2} = 0, \frac{4}{2} = 0, \frac{2}{2} = 0, \frac{1}{2} = 1.$ Bin = 00100000
.	46	$\frac{46}{2} = 0, \frac{23}{2} = 1, \frac{11}{2} = 1, \frac{5}{2} = 1, \frac{2}{2} = 0, \frac{1}{2} = 1.$ Bin = 00101110

Texto en binario:

01000101 01101101 01110000 01100101 01111010 01100001 01101101 01101111 0110011 00100000
 01100101 01101100 00100000 01110100 11101001 01100011 01101110 01101001 01100011 01101111 00100000
 01100101 01101110 00100000 01101100 01100001 00100000 01010101 01101110 01101001 01110110 01100101
 01110010 01110011 01101001 01100100 01100001 01100100 00100000 01000111 01100001 01101100 01101001
 01101100 01100101 01101111 00101110

2. Traduzca su nombre a binario usando los valores proporcionados por la tabla

ASCII.

Carácter	Decimal	Binario
A	65	$\frac{65}{2} = 1, \frac{32}{2} = 0, \frac{16}{2} = 0, \frac{8}{2} = 0, \frac{4}{2} = 0, \frac{2}{2} = 0, \frac{1}{2} = 1. Bin = 01000001$
R	82	$\frac{82}{2} = 0, \frac{41}{2} = 1, \frac{20}{2} = 0, \frac{10}{2} = 0, \frac{5}{2} = 1, \frac{2}{2} = 0, \frac{1}{2} = 1. Bin = 01010010$
f	102	$\frac{102}{2} = 0, \frac{51}{2} = 1, \frac{25}{2} = 1, \frac{12}{2} = 0, \frac{6}{2} = 0, \frac{3}{2} = 1, \frac{1}{2} = 1. Bin = 01100110$
g	103	$\frac{103}{2} = 1, \frac{51}{2} = 1, \frac{25}{2} = 1, \frac{12}{2} = 0, \frac{6}{2} = 0, \frac{3}{2} = 1, \frac{1}{2} = 1. Bin = 01100110$
o	111	$\frac{111}{2} = 1, \frac{55}{2} = 1, \frac{27}{2} = 1, \frac{13}{2} = 1, \frac{6}{2} = 0, \frac{3}{2} = 1, \frac{1}{2} = 1. Bin = 01101111$
u	117	$\frac{117}{2} = 1, \frac{58}{2} = 0, \frac{29}{2} = 1, \frac{14}{2} = 0, \frac{7}{2} = 1, \frac{3}{2} = 1, \frac{1}{2} = 1. Bin = 01110101$
y	121	$\frac{121}{2} = 1, \frac{60}{2} = 0, \frac{30}{2} = 0, \frac{15}{2} = 1, \frac{7}{2} = 1, \frac{3}{2} = 1, \frac{1}{2} = 1. Bin = 01111001$

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Binario:

01001101 01100001 01101110 01110101 01100101 01101100 00100000

01000001 01101100 01100110 01110010 01100101 01100100 01101111 00100000

01010010 01100101 01111001 01100101 01110011 00100000

01001101 01101111 01101110 01110100 01100101 01101110 01100101 01100111 0110010 01101111