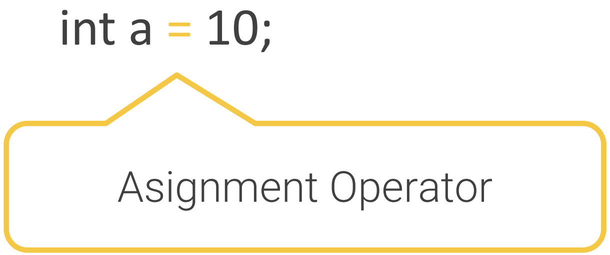
Assignment Operators and Casting

1. Asignment Operators
2. Casting between numeric data types
3. Casting between char and numeric data types

Asignment Operators

1. Asignment Operators



```
int a = 10;
```

Asignment Operator

1. Asignment Operators

```
char letter = ‘a’;
boolean access = true;
double area = 400.5;
```

1. Asignment Operators

~~boolean isLogin = 4;~~

~~int b= 400.5;~~

1. Asigment Operators

NUMERIC PRIMITIVE DATA TYPES

```
int a = 10;
a+=20; //a=30
```

Asignment Operator
a = a +20

1. Asigment Operators

NUMERIC PRIMITIVE DATA TYPES

```
int a = 10;
a-=20; //a=-10
```

Asignment Operator
a = a -20

1. Asigment Operators

NUMERIC PRIMITIVE DATA TYPES

```
int a = 10;
a*=20; //a=200
```

Asignment Operator
a = a *20

1. Asigment Operators

NUMERIC PRIMITIVE DATA TYPES

```
int a = 10;
a/=20; //a=0
```

Asignment Operator
a = a /20

Casting between numeric data types

2. Casting between numeric data types

NUMERIC PRIMITIVE DATA TYPES

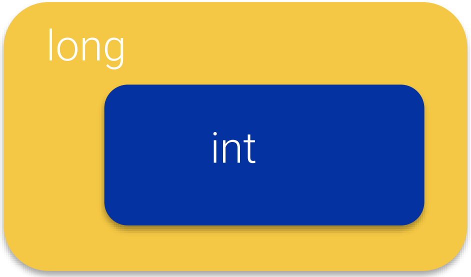
8bits	16bits	32bits	64bits	32bits	64bits
byte	short	int	long	float	double

2. Casting between numeric data types

```
int a = 10;
long b = a;
```

Conversión por ampliación

2. Casting between numeric data types

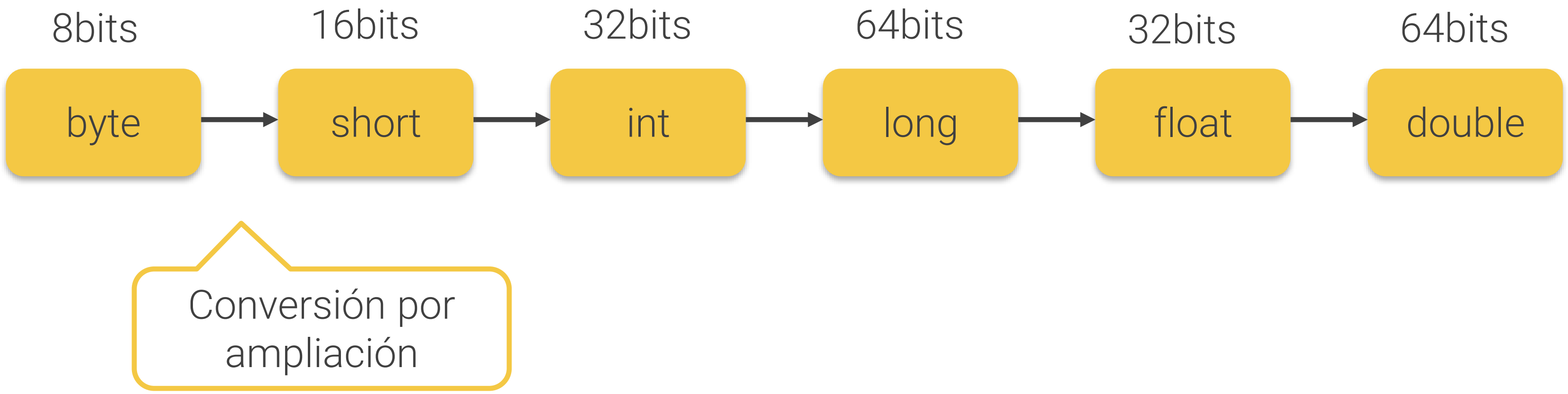


```
int a = 10;
long b = a;
```

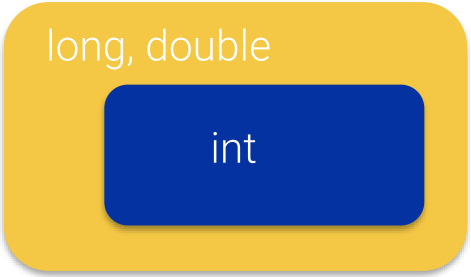
Conversión por ampliación

2. Casting between numeric data types

NUMERIC PRIMITIVE DATA TYPES



2. Casting between numeric data types

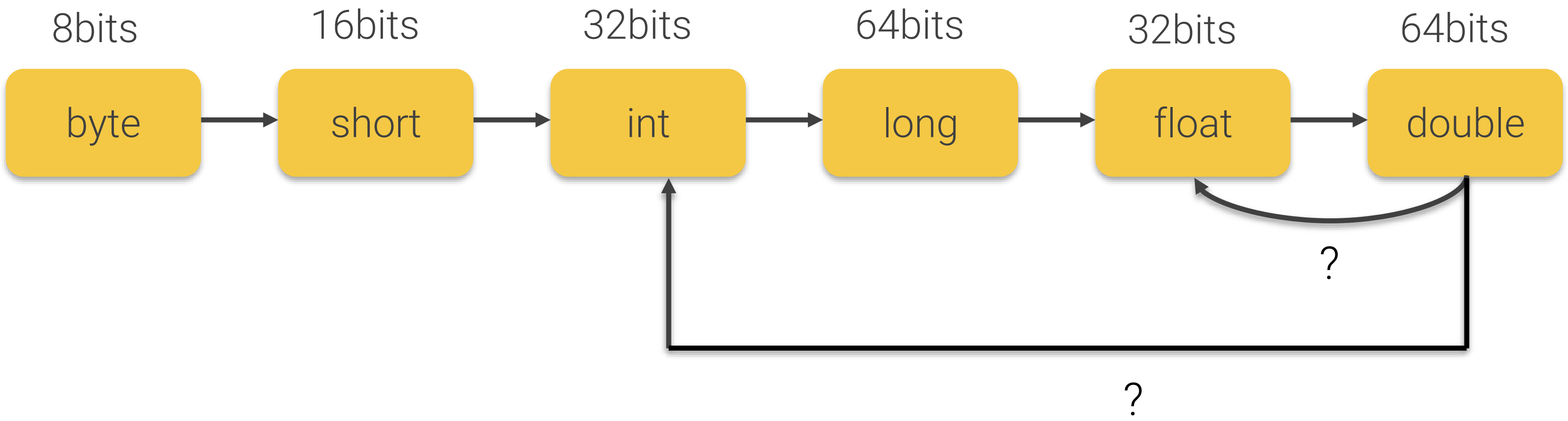


```
int a = 10;
long b = a;
double d = a;
```

Conversión por ampliación

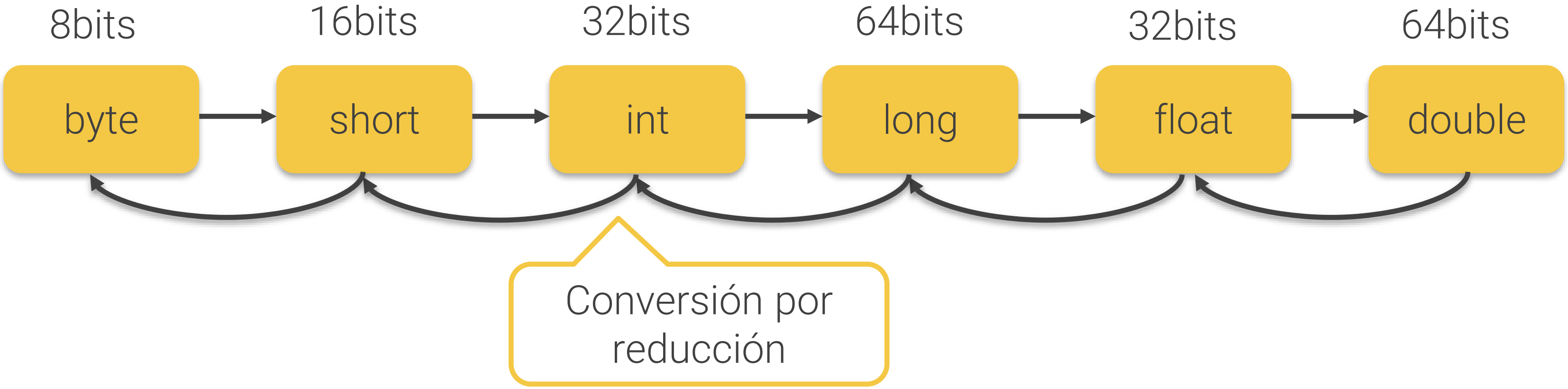
2. Casting between numeric data types

NUMERIC PRIMITIVE DATA TYPES



2. Casting between numeric data types

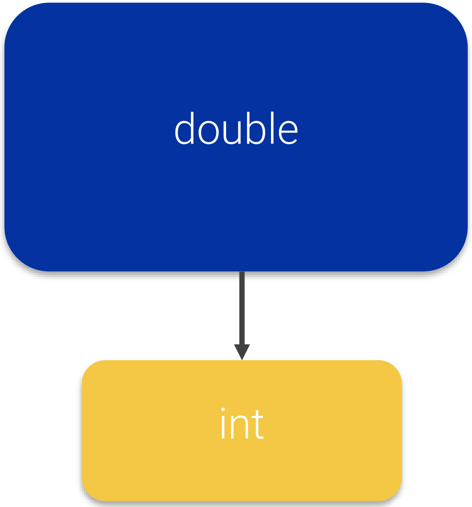
NUMERIC PRIMITIVE DATA TYPES



2. Casting between numeric data types

```
double a = 300.7;
int b = (int) a;   //300
```

2. Casting between numeric data types



```
double a = 300.7;
int b = (int) a;   //300
```

Conversión por reducción

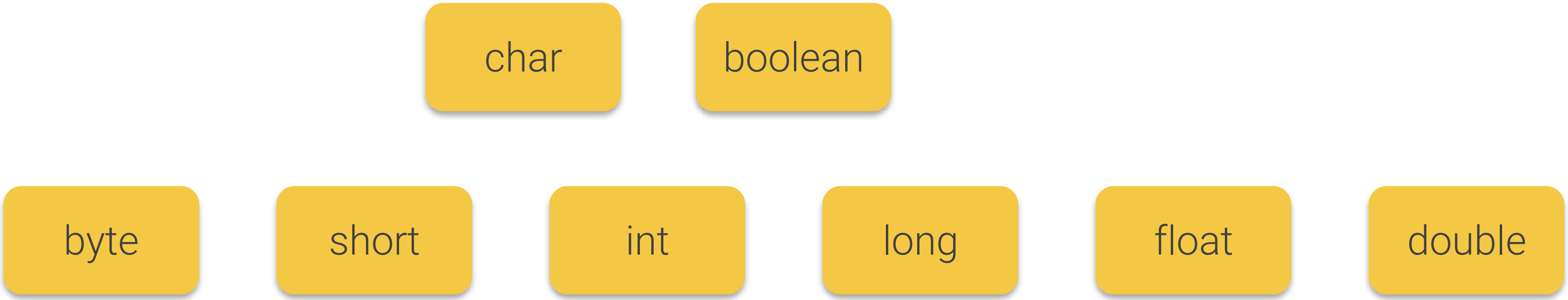
2. Casting between numeric data types

double a = 300.~~7;~~
int b = (int) a;   //300

Casting between char and numeric data types

3. Casting between char and numeric data types

PRIMITIVE DATA TYPES



char

boolean

byte

short

int

long

float

double

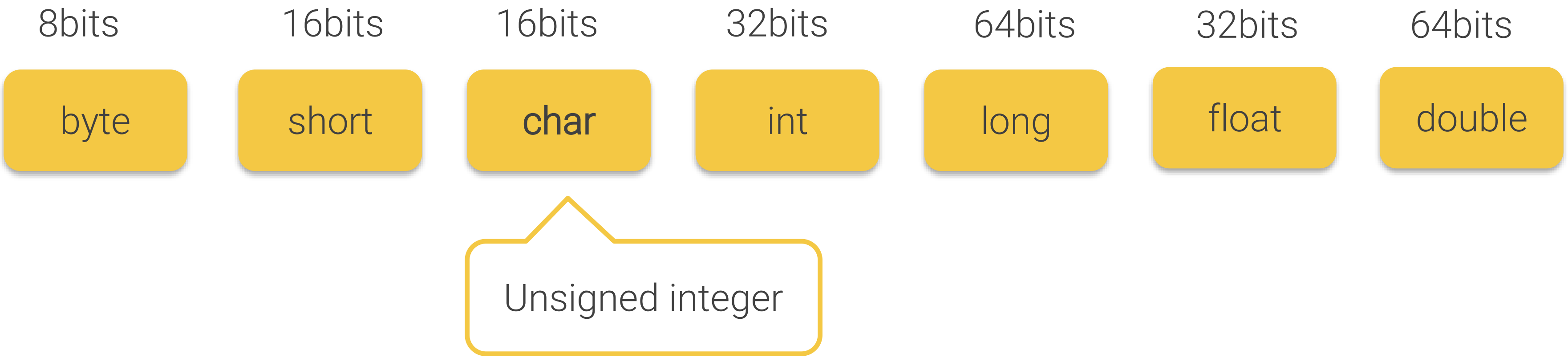
3. Casting between char and numeric data types

PRIMITIVE DATA TYPES

char ~~boolean~~

byte short int long float double

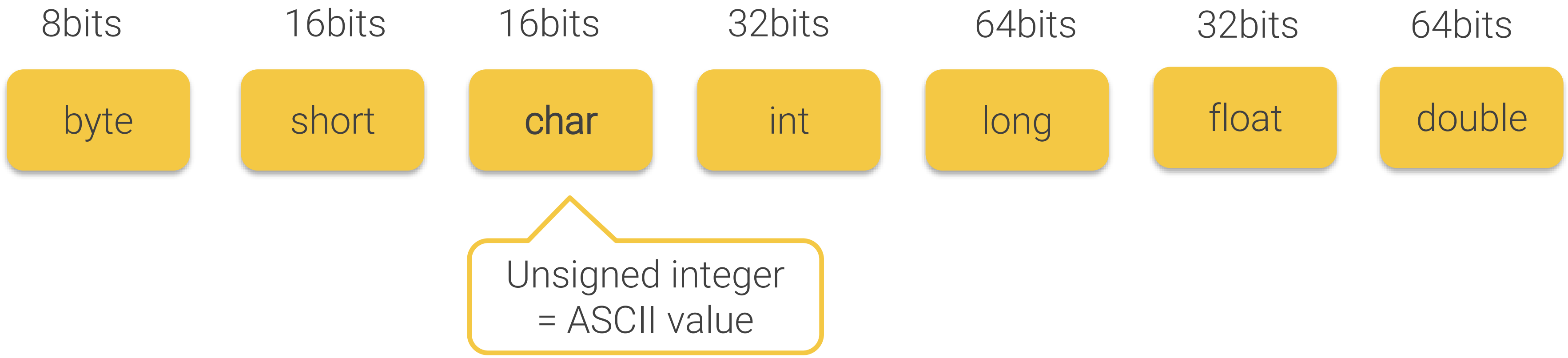
3. Casting between char and numeric data types



8bits	16bits	16bits	32bits	64bits	32bits	64bits
byte	short	char	int	long	float	double

Unsigned integer

3. Casting between char and numeric data types



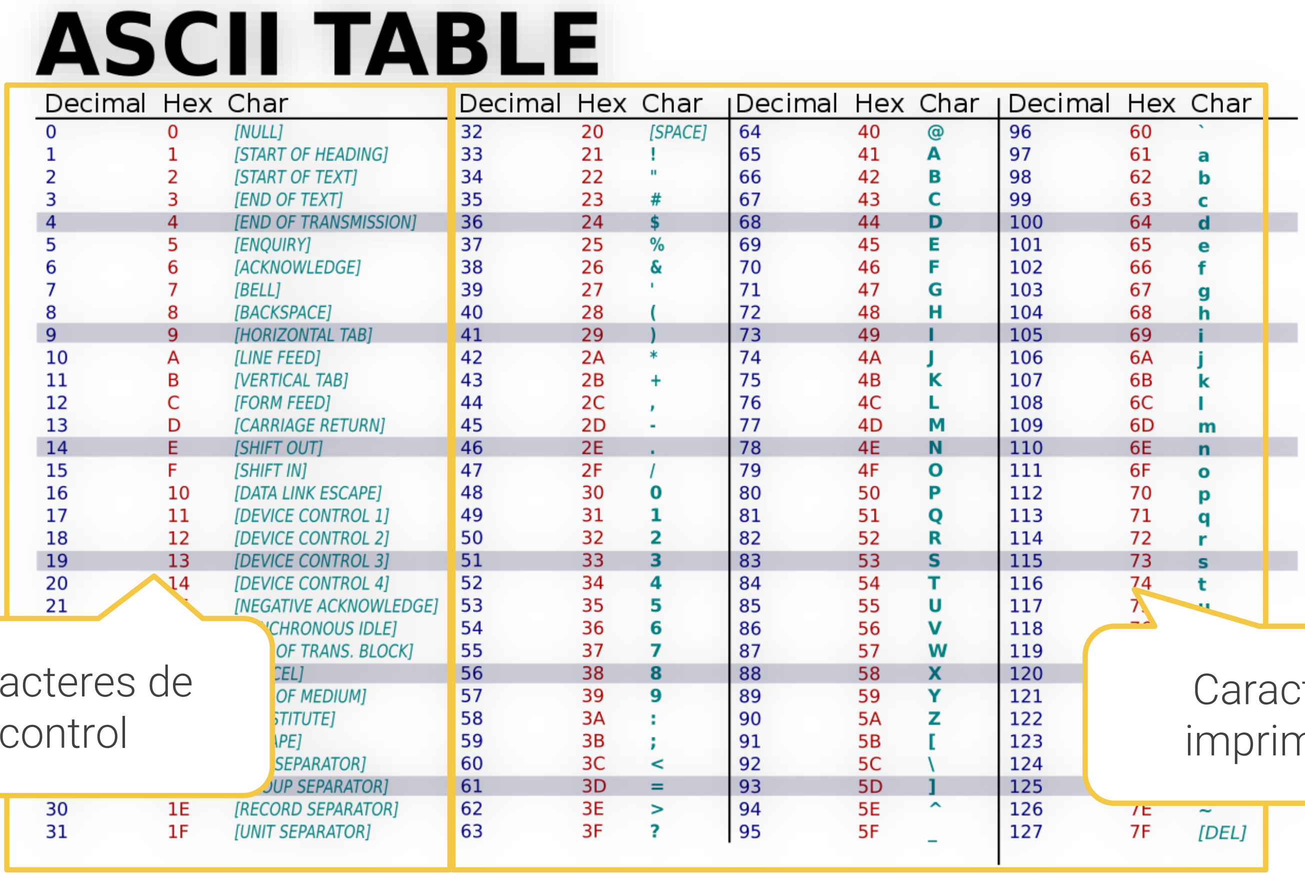
byte	short	char	int	long	float	double
8bits	16bits	16bits	32bits	64bits	32bits	64bits

Unsigned integer
= ASCII value

3. Casting between char and numeric data types

https://www.ascii-code.com

3. Casting between char and numeric data types



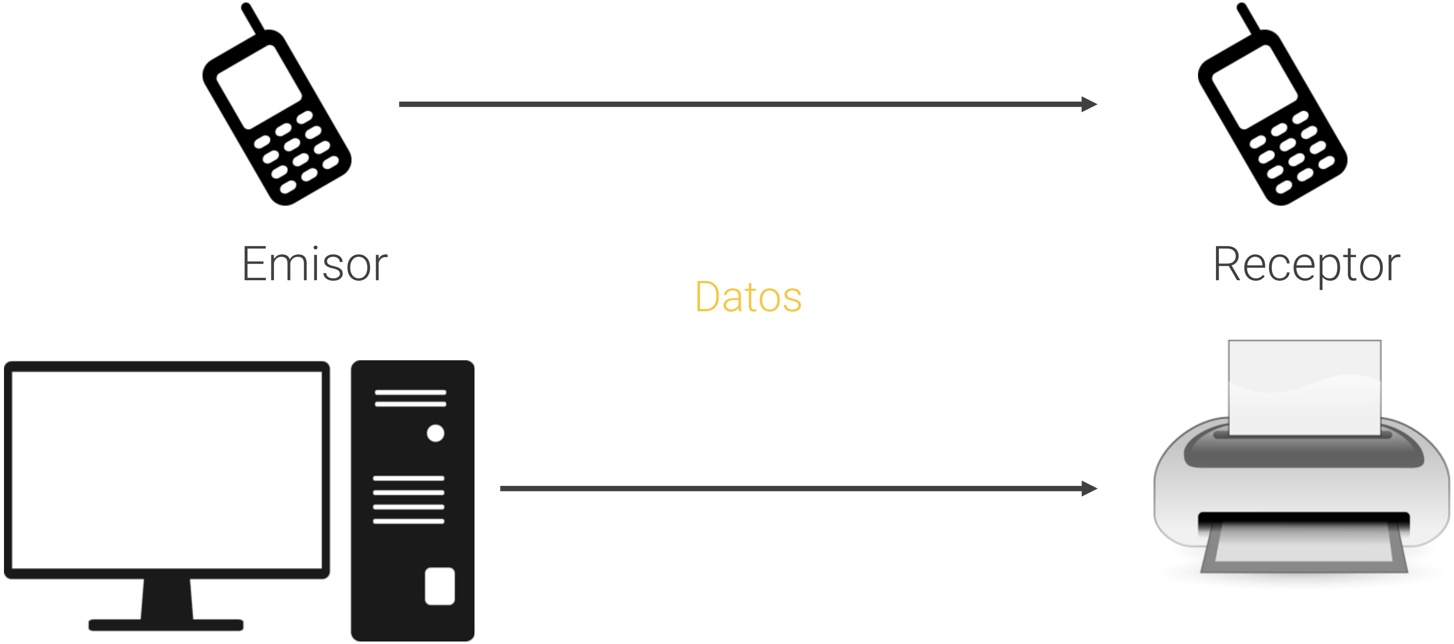
ASCII TABLE

Decimal	Hex	Char	Decimal	Hex	Char	Decimal	Hex	Char	Decimal	Hex	Char
0	0	[NULL]	32	20	[SPACE]	64	40	@	96	60	`
1	1	[START OF HEADING]	33	21	!	65	41	A	97	61	a
2	2	[START OF TEXT]	34	22	"	66	42	B	98	62	b
3	3	[END OF TEXT]	35	23	#	67	43	C	99	63	c
4	4	[END OF TRANSMISSION]	36	24	$	68	44	D	100	64	d
5	5	[ENQUIRY]	37	25	%	69	45	E	101	65	e
6	6	[ACKNOWLEDGE]	38	26	&	70	46	F	102	66	f
7	7	[BELL]	39	27	'	71	47	G	103	67	g
8	8	[BACKSPACE]	40	28	(	72	48	H	104	68	h
9	9	[HORIZONTAL TAB]	41	29	)	73	49	I	105	69	i
10	A	[LINE FEED]	42	2A	*	74	4A	J	106	6A	j
11	B	[VERTICAL TAB]	43	2B	+	75	4B	K	107	6B	k
12	C	[FORM FEED]	44	2C	,	76	4C	L	108	6C	l
13	D	[CARRIAGE RETURN]	45	2D	-	77	4D	M	109	6D	m
14	E	[SHIFT OUT]	46	2E	.	78	4E	N	110	6E	n
15	F	[SHIFT IN]	47	2F	/	79	4F	O	111	6F	o
16	10	[DATA LINK ESCAPE]	48	30	0	80	50	P	112	70	p
17	11	[DEVICE CONTROL 1]	49	31	1	81	51	Q	113	71	q
18	12	[DEVICE CONTROL 2]	50	32	2	82	52	R	114	72	r
19	13	[DEVICE CONTROL 3]	51	33	3	83	53	S	115	73	s
20	14	[DEVICE CONTROL 4]	52	34	4	84	54	T	116	74	t
21	[illegible]	[NEGATIVE ACKNOWLEDGE]	53	35	5	85	55	U	117	7	[illegible]
[illegible]	[illegible]	CHRONOUS IDLE]	54	36	6	86	56	V	118	[illegible]	[illegible]
[illegible]	[illegible]	OF TRANS. BLOCK]	55	37	7	87	57	W	119	[illegible]	[illegible]
[illegible]	[illegible]	CEL]	56	38	8	88	58	X	120	[illegible]	[illegible]
[illegible]	[illegible]	OF MEDIUM]	57	39	9	89	59	Y	121	[illegible]	[illegible]
[illegible]	[illegible]	STITUTE]	58	3A	:	90	5A	Z	122	[illegible]	[illegible]
[illegible]	[illegible]	APE]	59	3B	;	91	5B	[	123	[illegible]	[illegible]
[illegible]	[illegible]	SEPARATOR]	60	3C	<	92	5C	\	124	[illegible]	[illegible]
[illegible]	[illegible]	OUP SEPARATOR]	61	3D	=	93	5D	]	125	[illegible]	[illegible]
30	1E	[RECORD SEPARATOR]	62	3E	>	94	5E	^	126	7E	~
31	1F	[UNIT SEPARATOR]	63	3F	?	95	5F	_	127	7F	[DEL]

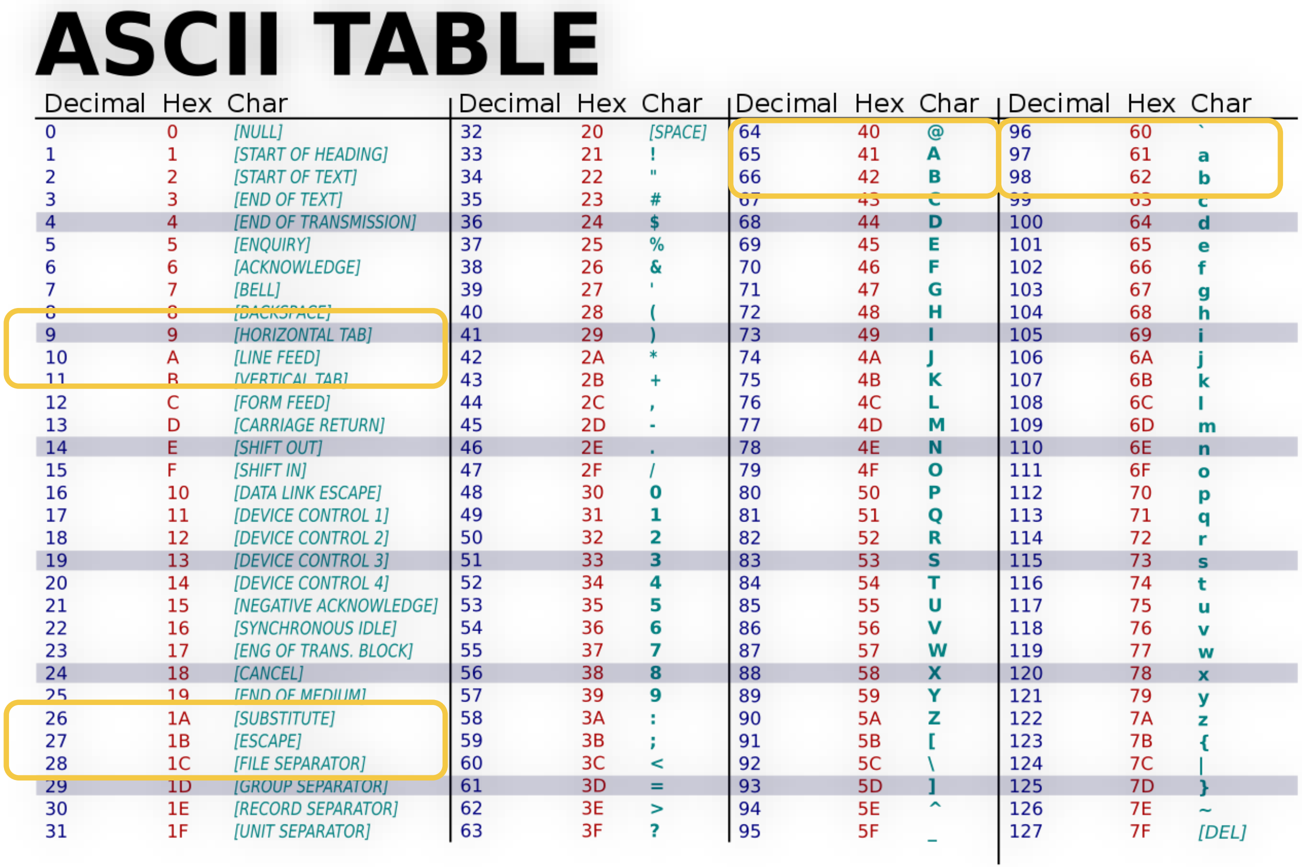
Caracteres de control

Caracteres imprimibles

3. Casting between char and numeric data types



3. Casting between char and numeric data types



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2	2	[START OF TEXT]	34	22	"	66	42	B	98	62	b
3	3	[END OF TEXT]	35	23	#	67	43	C	99	63	c
4	4	[END OF TRANSMISSION]	36	24	$	68	44	D	100	64	d
5	5	[ENQUIRY]	37	25	%	69	45	E	101	65	e
6	6	[ACKNOWLEDGE]	38	26	&	70	46	F	102	66	f
7	7	[BELL]	39	27	'	71	47	G	103	67	g
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14	E	[SHIFT OUT]	46	2E	.	78	4E	N	110	6E	n
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16	10	[DATA LINK ESCAPE]	48	30	0	80	50	P	112	70	p
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18	12	[DEVICE CONTROL 2]	50	32	2	82	52	R	114	72	r
19	13	[DEVICE CONTROL 3]	51	33	3	83	53	S	115	73	s
20	14	[DEVICE CONTROL 4]	52	34	4	84	54	T	116	74	t
21	15	[NEGATIVE ACKNOWLEDGE]	53	35	5	85	55	U	117	75	u
22	16	[SYNCHRONOUS IDLE]	54	36	6	86	56	V	118	76	v
23	17	[ENG OF TRANS. BLOCK]	55	37	7	87	57	W	119	77	w
24	18	[CANCEL]	56	38	8	88	58	X	120	78	x
25	19	[END OF MEDIUM]	57	39	9	89	59	Y	121	79	y
26	1A	[SUBSTITUTE]	58	3A	:	90	5A	Z	122	7A	z
27	1B	[ESCAPE]	59	3B	;	91	5B	[	123	7B	{
28	1C	[FILE SEPARATOR]	60	3C	<	92	5C	\	124	7C	|
29	1D	[GROUP SEPARATOR]	61	3D	=	93	5D	]	125	7D	}
30	1E	[RECORD SEPARATOR]	62	3E	>	94	5E	^	126	7E	~
31	1F	[UNIT SEPARATOR]	63	3F	?	95	5F	_	127	7F	[DEL]

3. Casting between char and numeric data types

```
int entero= 'a'; //ASCII value: 97
```

3. Casting between char and numeric data types

```
char character= (char) 97; //ASCII character: a
```

3. Casting between char and numeric data types

ASCII value: 97

```
char letra= 'a';
          char letraMayuscula= (char)(letra-32); //ASCII character: A
```

97-32=65

“Aprender es como remar contra corriente: en cuanto se deja, se retrocede.“

EDWARD BENJAMIN BRITTEN.

La Salle