

# VISUALIZACIÓN DE DATOS EN RSTUDIO



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ESCUELA DE INGENIERÍA INDUSTRIAL  
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**CICLO DE MINICURSOS**

SOCHE, 28 Y 30 DE OCTUBRE DE 2020

# AGENDA

INTRODUCCIÓN A LA VISUALIZACIÓN DE DATOS

BUENAS VS MALAS REPRESENTACIONES

DIMENSIONES Y ESTÉTICA

**TIPOS DE GRÁFICOS**

PROPÓSITO DE LA VISUALIZACIÓN

INTRODUCCIÓN A GGPLOT2

**VISUALIZACIÓN INTERACTIVA**

# ALGUNOS TIPOS DE GRÁFICOS Y SUS PROPÓSITOS



# from Data to Viz

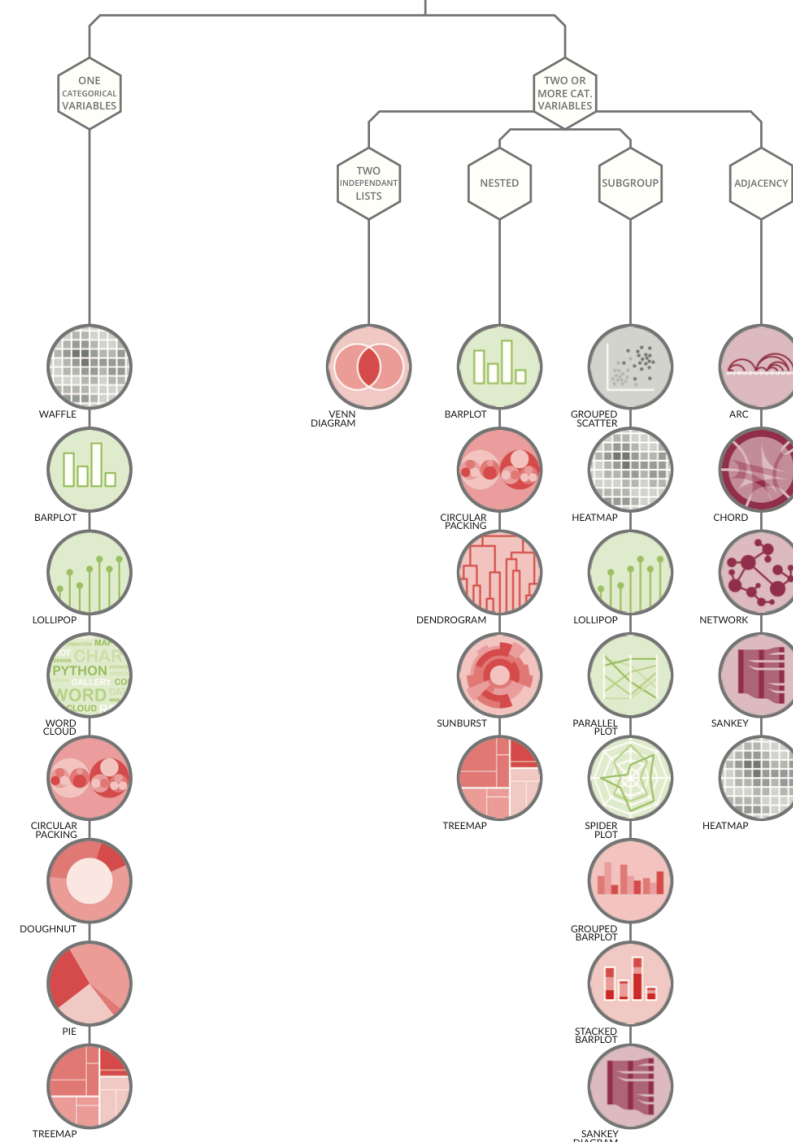
'From Data to Viz' is a classification of chart types based on input data format. It will help you find the perfect chart in three simple steps :

- 1 Identify what type of data you have.
- 2 Go to the corresponding decision tree and follow it down to a set of possible charts.
- 3 Choose the chart from the set that will suit your data and your needs best.

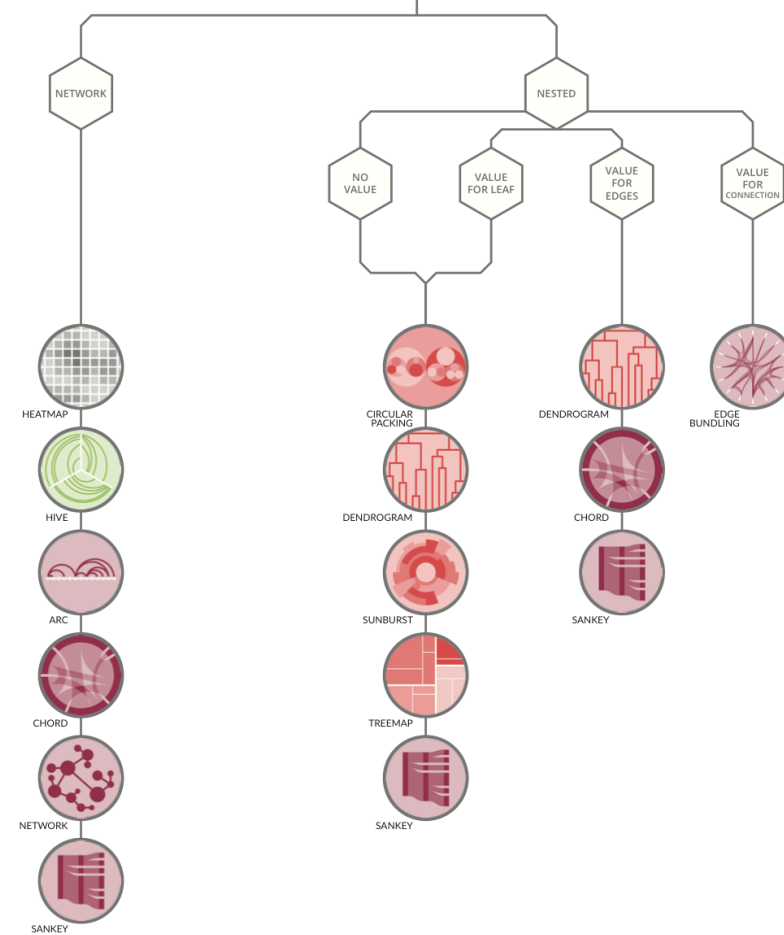
Dataviz is a world with endless possibilities and this project does not claim to be exhaustive. However it should provide you with a good starting point. For an interactive version and much more, visit:

[data-to-viz.com](https://data-to-viz.com)

## CATEGORIC



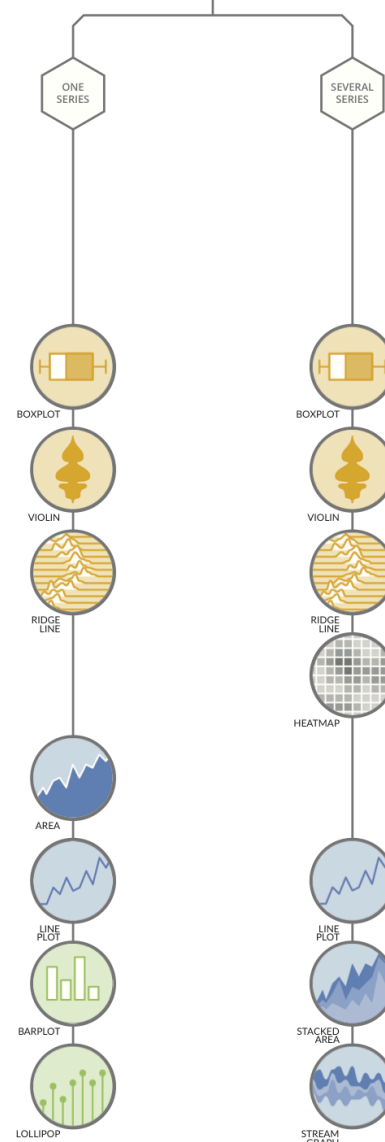
## RELATIONAL



## MAP



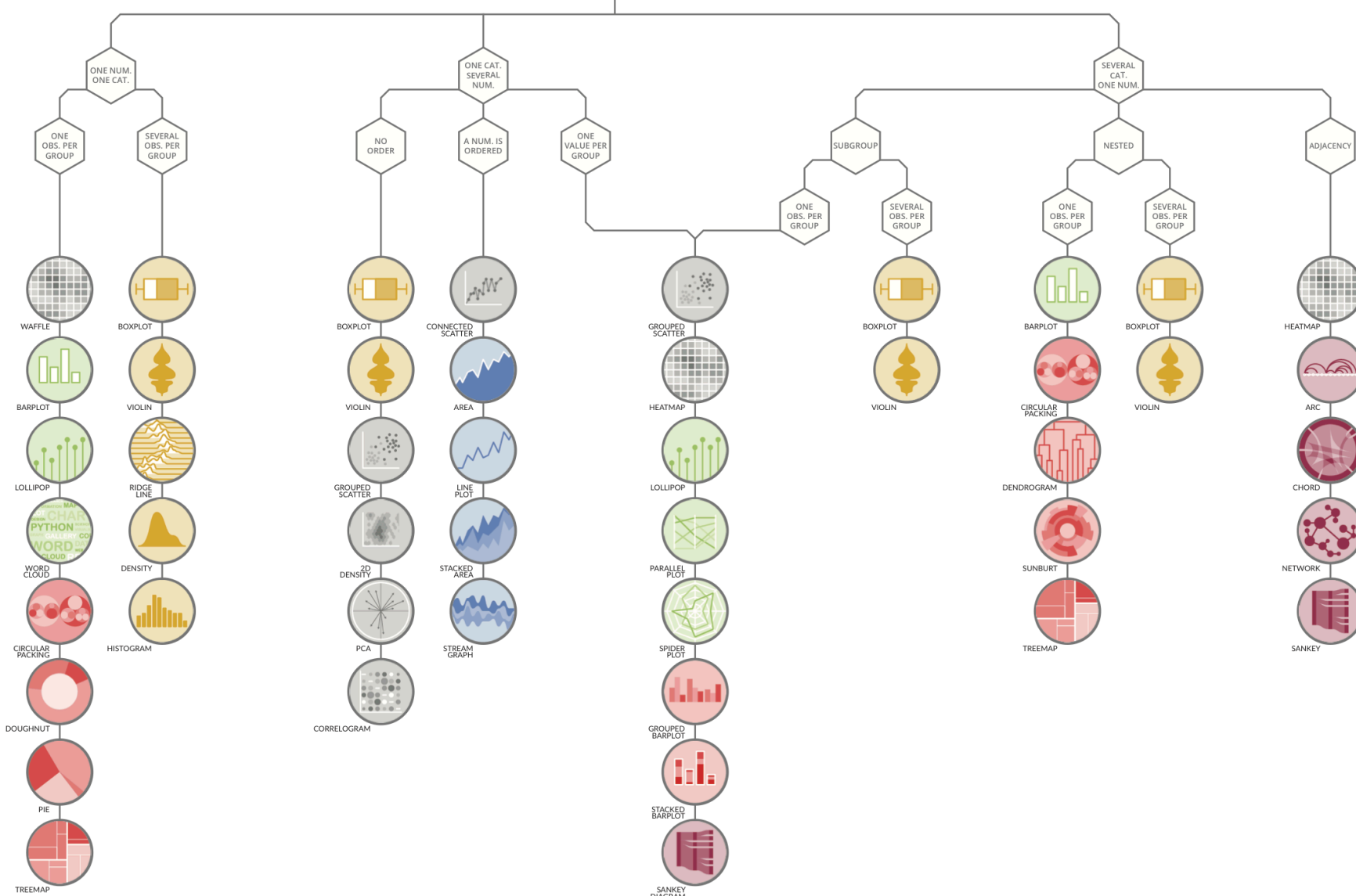
## TIME SERIES



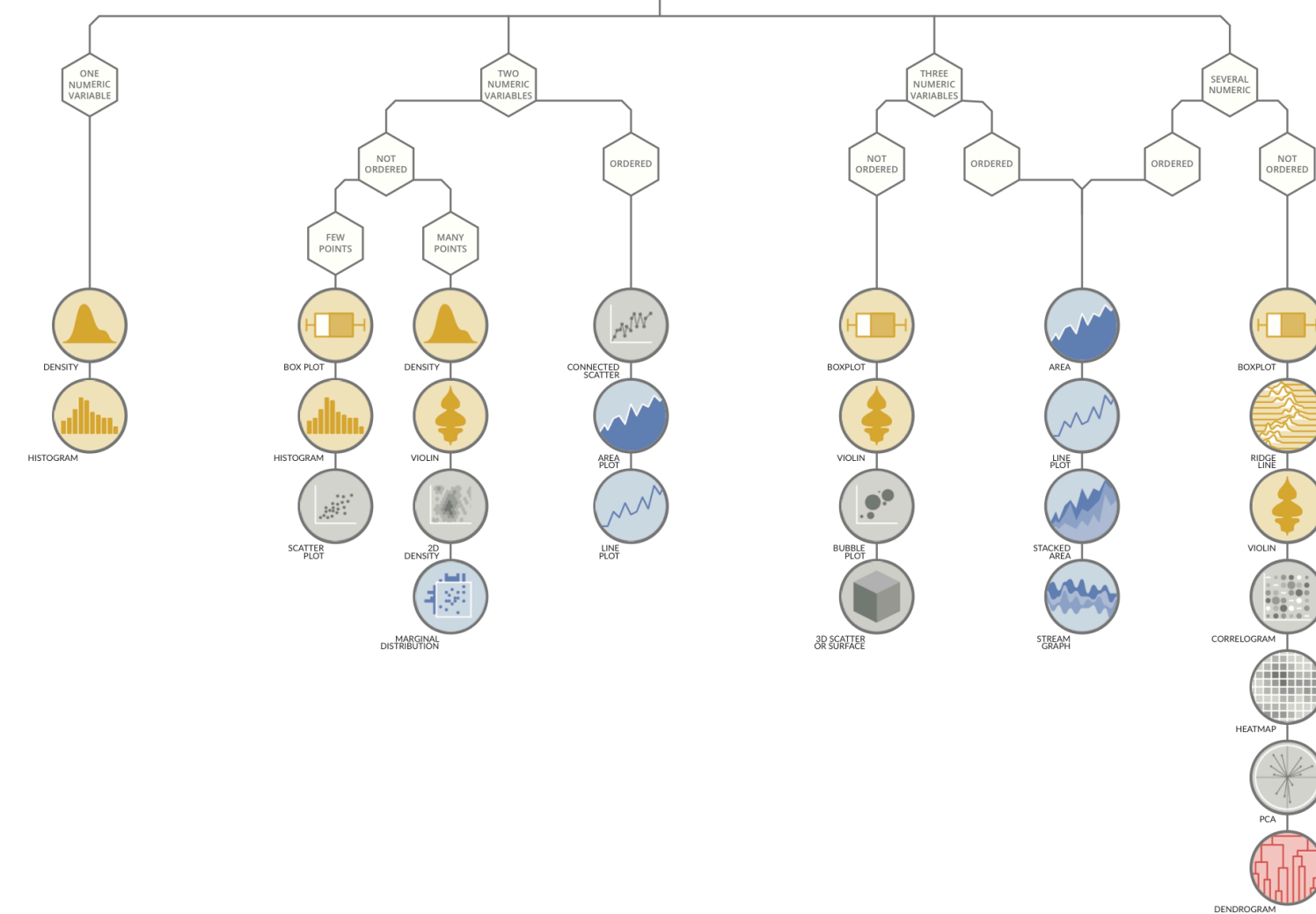
WHAT DO YOU WANT TO SHOW ?

- Distribution
- Correlation
- Ranking
- Part of a whole
- Evolution
- Maps
- Flow

## CATEGORIC AND NUMERIC



## NUMERIC





from Data to Viz

[HTTPS://WWW.DATA-TO-VIZ.COM/](https://www.data-to-viz.com/)

# INTRODUCCIÓN A GGPLOT2

**GGPLOT2 ES UN  
PAQUETE DE R QUE  
PERMITE HACER  
GRÁFICAS ELEGANTES**

**GGPLOT2 ESTÁ BASADO  
EN CAPAS**



**POSEE SU PROPIA  
“GRAMÁTICA”**




























# COLORS

cornsilk3	dodgerblue4	gray45	grey3	grey69	lemonchiffon2	mediumorchid	palevioletred4	slateblue
cornsilk2	dodgerblue3	gray44	grey2	grey68	lemonchiffon1	mediumblue	palevioletred3	skyblue4
cornsilk1	dodgerblue2	gray43	grey1	grey67	lemonchiffon	mediumaquamarine	palevioletred2	skyblue3
cornsilk	dodgerblue1	gray42	grey0	grey66	lawngreen	maroon4	palevioletred1	skyblue2
cornflowerblue	dodgerblue	gray41	grey	grey65	lavenderblush4	maroon3	palevioletred	skyblue1
coral4	dimgrey	gray40	greenyellow	grey64	lavenderblush3	maroon2	paleturquoise4	skyblue
coral3	dimgray	gray39	green4	grey63	lavenderblush2	maroon1	paleturquoise3	sienna4
coral2	deepskyblue4	gray38	green3	grey62	lavenderblush1	maroon	paleturquoise2	sienna3
coral1	deepskyblue3	gray37	green2	grey61	lavenderblush	magenta4	paleturquoise1	sienna2
coral	deepskyblue2	gray36	green1	grey60	lavender	magenta3	paleturquoise	sienna1
chocolate4	deepskyblue1	gray35	green	grey59	khaki4	magenta2	palegreen4	sienna
chocolate3	deepskyblue	gray34	gray100	grey58	khaki3	magenta1	palegreen3	seashell4
chocolate2	deeppink4	gray33	gray99	grey57	khaki2	magenta	palegreen2	seashell3
chocolate1	deeppink3	gray32	gray98	grey56	khaki1	linen	palegreen1	seashell2
chocolate	deeppink2	gray31	gray97	grey55	khaki	limegreen	palegreen	seashell1
chartreuse4	deeppink1	gray30	gray96	grey54	ivory4	lightyellow4	palegoldenrod	seashell
chartreuse3	deeppink	gray29	gray95	grey53	ivory3	lightyellow3	orchid4	seagreen4
chartreuse2	darkviolet	gray28	gray94	grey52	ivory2	lightyellow2	orchid3	seagreen3
chartreuse1	darkturquoise	gray27	gray93	grey51	ivory1	lightyellow1	orchid2	seagreen2
chartreuse	darkslategrey	gray26	gray92	grey50	ivory	lightyellow	orchid1	seagreen1
cadetblue4	darkslategray4	gray25	gray91	grey49	indianred4	lightsteelblue4	orchid	seagreen
cadetblue3	darkslategray3	gray24	gray90	grey48	indianred3	lightsteelblue3	orangered4	sandybrown
cadetblue2	darkslategray2	gray23	gray89	grey47	indianred2	lightsteelblue2	orangered3	salmon4
cadetblue1	darkslategray1	gray22	gray88	grey46	indianred1	lightsteelblue1	orangered2	salmon3
cadetblue	darkslategray	gray21	gray87	grey45	indianred	lightsteelblue	orangered1	salmon2
burlywood4	darkslateblue	gray20	gray86	grey44	hotpink4	lightslategrey	orangered	salmon1
burlywood3	darkseagreen4	gray19	gray85	grey43	hotpink3	lightslategray	orange4	salmon
burlywood2	darkseagreen3	gray18	gray84	grey42	hotpink2	lightslateblue	orange3	saddlebrown
burlywood1	darkseagreen2	gray17	gray83	grey41	hotpink1	lightskyblue4	orange2	royalblue4
burlywood	darkseagreen1	gray16	gray82	grey40	hotpink	lightskyblue3	orange1	royalblue3
brown4	darkseagreen	gray15	gray81	grey39	honeydew4	lightskyblue2	orange	royalblue2
brown3	darksalmon	gray14	gray80	grey38	honeydew3	lightskyblue1	olivedrab4	royalblue1
brown2	darkred	gray13	gray79	grey37	honeydew2	lightskyblue	olivedrab3	royalblue
brown1	darkorchid4	gray12	gray78	grey36	honeydew1	lightseagreen	olivedrab2	rosybrown4
brown	darkorchid3	gray11	gray77	grey35	honeydew	lightsalmon4	olivedrab1	rosybrown3
blueviolet	darkorchid2	gray10	gray76	grey34	grey100	lightsalmon3	olivedrab	rosybrown2
blue4	darkorchid1	gray9	gray75	grey33	grey99	lightsalmon2	oldlace	rosybrown1
blue3	darkorchid	gray8	gray74	grey32	grey98	lightsalmon1	navyblue	rosybrown
blue2	darkorange4	gray7	gray73	grey31	grey97	lightsalmon	navy	red4
blue1	darkorange3	gray6	gray72	grey30	grey96	lightpink4	navajowhite4	red3
blue	darkorange2	gray5	gray71	grey29	grey95	lightpink3	navajowhite3	red2

lavender	darkorange	gray4	gray70	grey28	grey94	lightpink2	navajowhite2	red1	steelblue4
black	darkorange	gray3	gray69	grey27	grey93	lightpink1	navajowhite1	red	steelblue3
bisque4	darkolivegreen4	gray2	gray68	grey26	grey92	lightpink	navajowhite	purple4	steelblue2
bisque3	darkolivegreen3	gray1	gray67	grey25	grey91	lightgrey	moccasin	purple3	steelblue1
bisque2	darkolivegreen2	gray0	gray66	grey24	grey90	lightgreen	mistyrose4	purple2	steelblue
bisque1	darkolivegreen1	gray	gray65	grey23	grey89	lightgray	mistyrose3	purple1	springgreen4
bisque	darkolivegreen	goldenrod4	gray64	grey22	grey88	lightgoldenrodyellow	mistyrose2	purple	springgreen3
beige	darkmagenta	goldenrod3	gray63	grey21	grey87	lightgoldenrod4	mistyrose1	powderblue	springgreen2
azure4	darkkhaki	goldenrod2	gray62	grey20	grey86	lightgoldenrod3	mistyrose	plum4	springgreen1
azure3	darkgrey	goldenrod1	gray61	grey19	grey85	lightgoldenrod2	mintcream	plum3	springgreen
azure2	darkgreen	goldenrod	gray60	grey18	grey84	lightgoldenrod1	midnightblue	plum2	snow4
azure1	darkgray	gold4	gray59	grey17	grey83	lightgoldenrod	mediumvioletred	plum1	snow3
azure	darkgoldenrod4	gold3	gray58	grey16	grey82	lightcyan4	mediumturquoise	plum	snow2
aquamarine4	darkgoldenrod3	gold2	gray57	grey15	grey81	lightcyan3	mediumspringgreen	pink4	snow1
aquamarine3	darkgoldenrod2	gold1	gray56	grey14	grey80	lightcyan2	mediumslateblue	pink3	snow
aquamarine2	darkgoldenrod1	gold	gray55	grey13	grey79	lightcyan1	mediumseagreen	pink2	slategrey
aquamarine1	darkgoldenrod	ghostwhite	gray54	grey12	grey78	lightcyan	mediumpurple4	pink1	slategray4
aquamarine	darkcyan	gainsboro	gray53	grey11	grey77	lightcoral	mediumpurple3	pink	slategray3
antiquewhite4	darkblue	forestgreen	gray52	grey10	grey76	lightblue4	mediumpurple2	peru	slategray2
antiquewhite3	cyan4	floralwhite	gray51	grey9	grey75	lightblue3	mediumpurple1	peachpuff4	slategray1
antiquewhite2	cyan3	firebrick4	gray50	grey8	grey74	lightblue2	mediumpurple	peachpuff3	slategray
antiquewhite1	cyan2	firebrick3	gray49	grey7	grey73	lightblue1	mediumorchid4	peachpuff2	slateblue4
aliceblue	cyan1	firebrick2	gray48	grey6	grey72	lightblue	mediumorchid3	peachpuff1	slateblue3
white	cornsilk4	firebrick1	gray47	grey5	grey71	lemonchiffon4	mediumorchid2	peachpuff	slateblue2
			gray46	grey4	grey70	lemonchiffon3	mediumorchid1	papayawhip	slateblue1



# FORMAS

	0		4		10		15		22
	1		6		11		16		21
	2		7		12		17		24
	5		8		13		18		23
	3		9		14		19		20

# LÍNEAS



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