MS EXCEL 365

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TRASFONDO HISTÓRICO 1978 **Dan Briclin** (Escuela de: Harvard Business) Desarrolló un Programa/Software **Visicalc** Hoja de Cálculo (Worksheet)



EXCEL: Hoja de Trabajo







Barra de Estado



FÓRMULAS y FUNCIONES

Realizan Cálculos Matemáticos



FÓRMULAS









FÓRMULAS: Funciones









POR CIENTO

MÉTODO 2b

Clic Botón Derecho



Category: General Number Currency Accounting Date Time Percentage Fraction Scientific Text Special	Sample Decimal places:
Percentage formats multiply a percent symbol.	y the cell value by 100 and displays the result wi

POR CIENTO

MÉTODO 2c

Seleccione el Rango de las Puntuaciones

	B4 ▼ fx =B3/B2						
A		В	С	D			
1		Exam1	Exam2	Exam 3			
2	Valor del Examen:	70	80	70			
3	Puntos Obtenidos:	56	66	60			
4	Porciento (%):	0.8	0.8	0.9 🖧			

Clic al Boton: **Percent Style**



Clic a la Celda donde se Colocará el Promedio (Ej: E4)

Clic al botón de Paste Function $f_{\overline{k}} \rightarrow$

Or select a <u>c</u>ategory:→Statistical

Insert Function		? 🔀
Search for a function:		
Type a brief descripti click Go	ion of what you want to do and then	Go
Or select a <u>c</u> ategory:	All	
Select a function:	Most Recently Used	
ABS ACOS ACOSH ADDRESS AND AREAS ASIN	Financial Date & Time Math & Trig Statistical Lookup & Retwrence Database Text	- -
ABS(number) Returns the absolute	Information	ts sign.
Help on this function	OK	Cancel

NOTA:

Es importante que las celdas no esten Formateadas como porciento

Desde la Sección: Select a function: Seleccionar: AVERAGE

Luego, Clic al Botón de: OK

Insert Function	Insert Function
Search for a function: Type a brief description of what you want to do and then click Go Or select a category: Statistical	Search for a function: Type a brief description of what you want to do and then click Go Or select a category: Statistical
Select a function:	Select a function: AVEDEV AVERAGE AVERAGEA BETADIST BETAINV BINOMDIST CHIDIST
AVERAGE(number1,number2,) Returns the average (arithmetic mean) of its arguments, which can be numbers or names, arrays, or references that contain numbers. Help on this function OK Cancel	AVERAGE(number1,number2,) Returns the average (arithmetic mean) of its arguments, which can be numbers or names, arrays, or references that contain numbers. Help on this function OK Cancel

Clic Dentro del Encasillado Rotulado: Number1

	Function Arguments
	AVERAGE Number1 B4:D4 Si = {0.8,0.825,0.85714: Number2 Si = number
	= 0.827380952 Returns the average (arithmetic mean) of its arguments, which can be numbers or names, arrays, or references that contain numbers. Number1: number1,number2, are 1 to 30 numeric arguments for which you want the average.
	Formula result = 0.827380952 Help on this function OK
segura	rse que Posea el Rango Correcto (Ej: B4:D ✔
	Clic Botón: OK

Resultado del Promedio:

	E4 🗾 🗾 🖈 EAVERAGE(B4:D4)						
	A	В	С	D	Е		
1					Pormedio		
2	Valor del Examen:	70	80	70			
3	Puntos Obtenidos:	56	66	60			
4	Porciento (%):	80.0	82.5	85.7	82.7 🕀		

Dividir el Total entre el Número de Notas: E4/3 Resultado del Promedio:

	F4 🚽	<i>f</i> x =E4/3				
	A	В	C	D	E	F
1					Total	Pormedio
2	Valor del Examen:	70	80	70		
3	Puntos Obtenidos:	56	66	60		
4	Porciento (%):	80.0	82.5	85.7	248.2	82.7

Clic a la Celda donde se Colocará la Desviación Estándar (Ej: **F4**)

	F4 🔫	fx				
	А	В	С	D	E	F
1		Exam 1	Exam 2	Exam 3	Promedio	STDDEV
2	Valor del Examen:	70	80	70		
3	Puntos Obtenidos:	56	66	60		
4	Porciento (%):	80.0	82.5	85.7	82.7	÷

Clic al botón de Paste Function fx ->



Or select a <u>c</u>ategory:→Statistical

Insert Function		? 🗙
Search for a function:		
Type a brief descripti click Go	on of what you want to do and then	Go
Or select a <u>c</u> ategory:	All	
Select a function:	Most Recently Used	
ABS	Financial	
ACOS	Date & Time Math & Trig	
ACOSH	Statistical	
ADDRESS	Lookup & Renvrence	
AREAS	Database	
ASIN	Text	-
ABS(number)	Logical Information	
Returns the absolute	value of a number, a number without i	ts sign.
		-
Help on this function	ОК	Cancel

Desde la Sección: Select a function: Seleccionar: STDDEV

Luego, Clic al Botón de: OK

Insert Function	Insert Function
Search for a function:	Search for a function:
Type a brief description of what you want to do and then <u>Go</u>	Type a brief description of what you want to do and then <u>Go</u>
Or select a category: Statistical	Or select a <u>c</u> ategory: Statistical
Select a functio <u>n</u> :	Select a function:
STANDARDIZE STDEVA STDEVA STDEVPA STDEVPA STEYX TDIST	AVEDEV AVERAGE AVERAGEA BETADIST BETAINV BINOMDIST CHIDIST
STDEV(number1,number2,) Estimates standard deviation based on a sample (ignores logical values and text in the sample).	AVERAGE(number1,number2,) Returns the average (arithmetic mean) of its arguments, which can be numbers or names, arrays, or references that contain numbers.
Help on this function OK Cancel	Help on this function OK Cancel

Clic Dentro del Encasillado Rotulado: Number1

Resultado de la Desviación Estándar:

	F4 👻	f∗ =STDEV(B4:D4)				
	А	В	С	D	E	F
1		Exam 1	Exam 2	Exam 3	Promedio	STDEV
2	Valor del Examen:	70	80	70		
3	Puntos Obtenidos:	56	66	60		
4	Porciento (%):	80.0	82.5	85.7	82.7	2.9 🗘
					•	



FÓRMULAS: Referencias Absolutas





FUNCIONES: VLOOKUP *EJEMPLO: Parte 1*

Para Determinar Las Notas de los Estudiantes:

Clic a la Celda donde se Colocará la Nota (Ej: M16)

Clic al botón de Paste Function $f_{x} \rightarrow$

Or select a <u>c</u>ategory:→Lookup & Reference

Insert Function		? 🔀		
Search for a function:				
Type a brief description of what you want to do and then click Go		Go		
Or select a <u>c</u> ategory:	All 🔽			
Select a functio <u>n</u> :	Most Recently Used			
ABS	Financial			
ACOS ACOSH ADDRESS AND AREAS ASIN	Date & Time Math & Trig Statistical Lookup & Reference Database Text Logical			
ABS(number) Logical Information Sector Information Informatio Information Information Info				
Help on this function	ОК	Cancel		

FUNCIONES: VLOOKUP *EJEMPLO: Parte 2: Desde: Ventana de Insert Function*

Desde la Sección: Select a function: Seleccionar: VLOOKUP

Luego, Clic al Botón de: OK

Insert Function	Insert Function
Search for a function:	Search for a function:
Type a brief description of what you want to do and then click Go Go Or select a category: Lookup & Reference	Type a brief description of what you want to do and then <u>Go</u> click Go Or select a <u>category</u> : Lookup & Reference
Select a function:	Select a function:
MATCH OFFSET ROW ROWS RTD TRANSPOSE VLOOKUP VLOOKUP VLOOKUP VLOOKUP VLOOKUP Number of a value in the leftmost column of a table, and then returns a value in the same row from a column you specify. By default, the table must be sorted in an ascending order. Help on this function OK Cancel	 MATCH OFFSET ROW ROWS RTD TRANSPOSE VLOOKUP VLOOKUP[lookup_value,table_array,col_index_num,) Looks for a value in the leftmost column of a table, and then returns a value in the same row from a column you specify. By default, the table must be sorted in an ascending order. Help on this function

FUNCIONES: VLOOKUP *EJEMPLO: Parte 3:*

Desde: Ventana de Function Arguments

Clic Dentro del Encasillado Rotulado: Lookup_value

		•	
	Function Argume	ents 🛛 🗙	
	Lookup_value	📧 = any	
	Table_array	🔣 = number	
	Col_index_num	💽 = number	
	Range_lookup	💽 = logical	
	Looks for a value in t from a column you s Lookup_value i	= the leftmost column of a table, and then returns a value in the same row becify. By default, the table must be sorted in an ascending order. Is the value to be found in the first column of the table, and can be a value, a reference, or a text string.	
	Formula result =		
	Help on this function	OK Cancel	
D	esde la	Hoja de Cálculo de las N	lotas
De en la	a Celda q Clic	ue Posee el % del Primer Es a la Celda de <mark>81.1%</mark> (Ej: <mark>L6</mark>)	tudiante,

FUNCIONES: VLOOKUP *EJEMPLO: Parte 4:*

Desde: Ventana de Function Arguments

La Función de VLOOKPUP se esta Construyento en la Ventana de **Function Arguments**:

-	nction Argum	ents	2
-VL	.OOKUP		
	Lookup_value	L16	5 = 0.810526316
	Table_array		🔣 = number
C	ol_index_num		💽 = number
	Range_lookup		💽 = logical
fro	oks for a value in m a column you s Lookup_value	ine lertmost column of a table pecify. By default, the table is the value to be found in the value, a reference, or a text	e, and then returns a value in the same row must be sorted in an ascending order. e first column of the table, and can be a string.
For	rmula result =		
He	lp on this function	1	OK Cancel
y	[,] en la	Barra de	la Fórmula:

FUNCIONES: VLOOKUP *EJEMPLO: Parte 5:*

Desde: Ventana de Function Arguments

Clic Dentro del Encasillado Rotulado: **Table array**

			V			
		Function Argum	ents			
		VLOOKUP				
		Lookup_value	L16	1 = 0.810526316		
		Table_array	Ι	💽 = number		
		Col_index_num		💽 = number		
		Range_lookup		💽 = logical		
		·		=		
		Looks for a value in from a column you s	the leftmost column of a table, and the specify. By default, the table must be s	en returns a value in the same ro corted in an ascending order.	row	
		Table_array	is a table of text, numbers, or logical v Table_array can be a reference to a r	values, in which data is retrieved ange or a range name.	d.	
		Formula result =				
		Help on this function	2	OK Cancel		
	De	sde la	Hoja de Cálc	ulo de las	s Notas	
			· •			
De	sde la Escala	a de las	Notas. Baio	la Columna	a de Rang	0 (%).
_ •					2)	- (/ • /)
		UIIC a	ia ceida de U	70 (EJ: U14	∠)	

FUNCIONES: VLOOKUP *EJEMPLO: Parte 6:*

Desde: Ventana de Function Arguments

La Función de VLOOKPUP se esta Construyento en la Ventana de **Function Arguments**:

r unerion Argun	nents	
VLOOKUP		
Lookup_value	L16 310526316	
Table_array	012 = 0	
Col_index_num	n 💽 = number	
Range_lookup	o 💽 = logical	
from a column you specify. By default, the table must be sorted in an ascending order. Table_array is a table of text, numbers, or logical values, in which data is retrieved. Table_array Table_array can be a reference to a range or a range name.		
Help on this function OK Cancel		

FUNCIONES: VLOOKUP EJEMPLO: Parte 7:

Desde: Ventana de Function Arguments

Escriba dos Puntos (:), luego de **O12**, Dentro del Encasillado Rotulado: **Table array**

Desde la Hoja de Cálculo de las Notas

Desde la *Escala de las Notas*, Bajo la Columna de <mark>Rango (%)</mark>, Clic a la Celda de **100%** (Ej: **017**)

Function Argum	ents		
Lookup_value	L16	1 = 0.810526316	
Table_array	012:017	5 = {0;0.6;0.7;0.8;0.9;1	
Col_index_num		🛐 = number	
Range_lookup		🛐 = logical	
= Looks for a value in the leftmost column of a table, and then returns a value in the same row from a column you specify. By default, the table must be sorted in an ascending order. Table_array is a table of text, numbers, or logical values, in which data is retrieved. Table_array can be a reference to a range or a range name.			
Formula result =			
Help on this function	L	OK Cancel	

FUNCIONES: VLOOKUP EJEMPLO: Parte 8:

Desde: Ventana de Function Arguments

Escriba dos Puntos (:), luego de **O17**, Dentro del Encasillado Rotulado: **Table array**

Desde la Hoja de Cálculo de las Notas

Desde la *Escala de las Notas*, Bajo la Columna de **Nota**, Clic a la Celda de **F** (Ej: **P12**)

Function Argum	ents 🧧	K	
		h	
Lookup_value	L16 🔠 = 0.810526316		
Table_array	012:017:P12		
Col_index_num	and the second s		
Range_lookup	🔤 = logical		
= Looks for a value in the leftmost column of a table, and then returns a value in the same row from a column you specify. By default, the table must be sorted in an ascending order. Table_array is a table of text, numbers, or logical values, in which data is retrieved. Table_array can be a reference to a range or a range name.			
Formula result =			
Help on this function	OK Cancel]	

FUNCIONES: VLOOKUP EJEMPLO: Parte 9:

Desde: Ventana de Function Arguments

Escriba dos Puntos (:), luego de P12, dentro del Encasillado Rotulado: Table array

Desde la Hoja de Cálculo de las Notas

Desde la Escala de las Notas, Bajo la Columna de Nota, Clic a la Celda de A (Ej: P17)

Function Argum	ents	×
Lookup_value	L16	• = 0.810526316
Table_array	012:017:P12:P17	• = {0,"F";0.6,"D";0.7,"
Col_index_num		🖬 = number
Range_lookup		🔄 = logical
Looks for a value in from a column you s Table_array	the leftmost column of a table, and then rel pecify. By default, the table must be sorted is a table of text, numbers, or logical values Table_array can be a reference to a range	= turns a value in the same row d in an ascending order. , in which data is retrieved. or a range name.
Formula result =		
Help on this function	1 (OK Cancel

FUNCIONES: VLOOKUP *EJEMPLO: Parte 10:*

Desde: Ventana de Function Arguments

Clic Dentro del Encasillado Rotulado: Col_Index_num



Function Argum	ents	X		
Lookup_value	L16	1 = 0.810526316		
Table_array	O12:O17:P12:P17	5 = {0,"F";0.6,"D";0.7,"		
Col_index_num	2	= 2		
Range_lookup		💽 = logical		
 = "B" Looks for a value in the leftmost column of a table, and then returns a value in the same row from a column you specify. By default, the table must be sorted in an ascending order. Col_index_num is the column number in table_array from which the matching value should be returned. The first column of values in the table is column 1. 				
Formula result =	В			
Help on this function	1			

FUNCIONES: VLOOKUP EJEMPLO: Parte 11:

Búsqueda Vertical del % y de la Nota

VLOOKPUP Busca el % del Estudiante (L16), luego, Verticalmente, Busca en la Escala de Notas, el % (O12 hasta O17) y la Nota (P12 hasta P17)



FUNCIONES: VLOOKUP *EJEMPLO: Parte 12:* **Editar Fórmula:** *Añadir Referencias Absolutas*





Clic Dentro, Antes de O12, del Encasillado Rotulado: Table array

Function Arguments				
VLOOKUP				
Lookup_value	L16	1 = 0.810526316		
Table_array	012:017:P12:P17	E = {0,"F";0.6,"D";0.7,"(
Col_index_num	2	1 = 2		
Range_lookup		💽 = logical		
= "B" Looks for a value in the leftmost column of a table, and then returns a value in the same row from a column you specify. By default, the table must be sorted in an ascending order. Table_array is a table of text, numbers, or logical values, in which data is retrieved. Table_array can be a reference to a range or a range name.				
Formula result =	В			
Help on this function	L	OK Cancel		

FUNCIONES: VLOOKUP *EJEMPLO: Parte 12:* **Editar Fórmula:** *Añadir Referencias Absolutas*

Añadir el Símbolo \$ antes y Despues de cada Letra Mayúscula

Function Arguments				
Lookup_value	L16	E = 0.810526316		
Table_array	\$0\$12:\$0\$17:\$P\$12:\$P\$17	E = {0,"F";0.6,"D";0.7,"(
Col_index_num	2	E = 2		
Range_lookup		💽 = logical		
 = "B" Looks for a value in the leftmost column of a table, and then returns a value in the same row from a column you specify. By default, the table must be sorted in an ascending order. Col_index_num is the column number in table_array from which the matching value should be returned. The first column of values in the table is column 1. 				
Formula result =	В			
Help on this function	1	OK Cancel		

FUNCIONES: VLOOKUP *EJEMPLO: Parte 13: Fórmula Final*

▶ =VLOOKUP(L16,\$0\$12:\$0\$17:\$P\$12:\$P\$17, 2)

CÁLCULOS		
TOTAL	PCNT	NOTA
190		
154	81.1%	В 🔶
129	67.9%	ľ
147	77.4%	
98	51.6%	
143	75.3%	
140	73.7%	
153	80.5%	
176	92.6%	
142	74.7%	
160	84.2%	

La Nota Correspondiente a este Primer Estudiante que Determinó la Fórmula fue de



TOMANDO DECISIONES: Función Lógica



TOMANDO DECISIONES: Función Lógica



TOMANDO DECISIONES: Función Lógica

