

# Formula One Demonstration Workbook

**This workbook demonstrates many of the built-in features and functionality of Formula One. These include:**

- Multiple Sheets**
- Built-in Functions**
- Formatting**
- Objects on the Sheet**

For more information please click on the sheet tabs at the bottom of this workbook.

## Worksheet Function Examples

This worksheet contains sample formulas you can use to complete common spreadsheet tasks.

Cells containing formulas are yellow. To view a sample formula, select the cell to display the formula in the formula bar.

### Summing, Counting, and Other Statistical Functions

The formulas in the following table use the sample data located in cells G10:J16.

Functions and Operators	Using Cell References	Using Defined Names
SUM()	199,500	199,500
SUMIF()	53,500	53,500
COUNT()	6	6
COUNTIF()	2	2
AVERAGE()	33,250	33,250
MIN()	16,000	16,000
MAX()	50,000	50,000
FACT()	362,880	362,880
STDEV()	13,856	13,856
STDEVP()	12,648	12,648
SUMSQ()	129,260	129,260
VAR()	7,002	7,002
VARP()	5,835	5,835

Sample List

Name	Salary
Bill	16,000
Chris	25,000
Dave	28,500
Ed	30,000
Fred	50,000
George	50,000
Factorial Data:	9

### Indexing, Matching, and Looking Up Values

The formulas in the following table use the sample data located in cells G10:J16.

Functions and Operators	Using Cell References	Using Defined Names
VLOOKUP()	126	126
HLOOKUP()	28,500	28,500

Sample List For HLOOKUP()

Bill	Chris
16,000	25,000

## Functions

MATCH()	4	4
INDEX()	30,000	30,000
INDEX(MATCH())	28,500	28,500
LOOKUP()	9	9
CHOOSE()	Fri	
OFFSET()	28,500	

9	3
19	129

## Manipulating Text

Use the LEFT, MID, and RIGHT functions to extract characters from a text string.

**Sample\_Text:** The rain falls gently!

Functions and Operators	Using Cell References	Using Defined Names
LEFT()	The rain	The rain
MID()	falls	falls
RIGHT()	gently!	gently!
CONCAT (&)	The rain falls.	The rain falls.
CONCATENATE	The rain falls.	The rain falls.
LEN()	22	22
LOWER()	the rain falls gently!	the rain falls gently!
UPPER()	THE RAIN FALLS GENTLY!	THE RAIN FALLS GENTLY!
SUBSTITUTE()	The rain falls gently!	The rain falls gently!
FIND()	10	10
SEARCH()	10	10
REPLACE()	The Snow falls gently!	The Snow falls gently!
PROPER()	The Rain Falls Gently!	The Rain Falls Gently!
TRIM()	The rain falls gently!	The rain falls gently!
CLEAN()	The rain falls gently!	The rain falls gently!
REPLACE()	The Snow falls gently!	The Snow falls gently!
CHAR()	Hi	
CODE()	84	
DOLLAR()	\$1,000.00	
EXACT()	1	
REPT()	Hi Hi Hi Hi	

## Functions

T()	Hi Hi Hi Hi
TEXT()	10 1/8

### Date Functions

Start Date                      1/1/1957  
End Date                         2/1/1993

Number of months between above dates:	433
Number of days between above dates:	13180
Number of years between above dates:	36

Functions and Operators	Using The Current Date
NOW()	6/27/2025 22:43
TODAY()	6/27/2025
WEEKDAY()	Fri
MONTH()	6
DAY()	27
YEAR()	2025
DATE()	6/27/2025

### Time Functions

#### Summing Time

Start Time	End Time	Elapsed Time
8:15 AM	12:00 AM	15:45

#### Accumulating Time Over 24 Hours

9:00  
0:00

## Functions

	0:00
	0:00
Total (in decimal):	<b>9.00</b>
Total ([h]:mm:ss):	<b>0.375</b>

### Converting Time in h:mm Format to Decimal Format

<b>0.00</b>	0:00
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### Converting Time in Decimal Format to h:mm Format

<b>4:30:00</b>	4.5
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Functions and Operators	Using The Current Time
NOW()	<b>6/27/2025 22:43</b>
HOUR()	<b>22</b>
MINUTE()	<b>43</b>
SECOND()	<b>31</b>
TIME()	<b>0.946886574</b>
TIMEVALUE()	<b>0.541655093</b>

## Business and Financial Functions

Functions and Operators	Using Constants
PMT()	<b>\$439.43</b>
PPMT()	<b>\$321.56</b>
PV()	<b>\$17,999.89</b>
RATE()	<b>8%</b>
FV()	<b>\$4,774.55</b>
IPMT()	<b>\$117.87</b>
NPER()	<b>36.98</b>
NPV()	<b>\$811.57</b>

### Sample Data for IRR()

Name	Salary
Investment	-60,000
Return	9,590
Return	10,580
Return	12,790
Return	15,830
Return	18,930

## Functions

IRR()	4%
MIRR()	5%

Functions and Operators	Using Constants
DB()	\$1,451.52
DDB()	\$1,457.73
SLN	\$1,285.71
SYD	\$1,607.14
VDB	\$1,041.23

## Math Functions

Functions and Operators	Using Cell References
ABS()	500.00
INT()	122.00
LN()	3.00
LOG()	1.00
LOG10()	2.00
SQRT()	3.00
EXP()	20.09
ROUND()	123.00
ROUNDDOWN()	124.00
ROUNDUP()	125.00
TRUNC()	123.00
FLOOR()	1.00
CEILING()	1.00
ODD()	125.00
EVEN()	124.00
TYPE()	1.00
N()	1.00

### Sample Data

ABS()	-500
INT()	122.0
LN()	20
LOG()	10
LOG10()	100
SQRT()	9
EXP()	3
ROUND()	123.0000
ROUNDDOWN()	124.0000
ROUNDUP()	125.0000
TRUNC()	123.0000
FLOOR()	1.0000
CEILING()	1.0000
ODD()	123.5
EVEN()	123.5
TYPE()	124.5
N()	1.00

## Functions

SIGN()	(1.00)
VALUE()	3.00

SIN()	0.89
COS()	(0.45)
TAN()	(2.00)
ASIN()	(1.57)
ACOS()	1.05
ATAN()	1.29
ASINH()	1.97
ACOSH()	-
ATANH()	0.55

SIGN()	-1.00
VALUE()	3

SIN()	90
COS()	90
TAN()	90
ASIN()	-1.0
ACOS()	0.5
ATAN()	3.5
ASINH()	3.5
ACOSH()	1.0
ATANH()	0.5

## Misc. Functions

Functions and Operators	Using Cell References
IF()	Yes
INDIRECT()	1.00
ERROR.TYPE()	7.00

MOD()	2.00
ROW()	148
ROWS()	37
COLUMN()	8
COLUMNS()	2
ADDRESS()	\$H\$148
AND()	1
OR()	1
NOT()	1

PI()	3.1415926536
RAND()	0.78

## Sample Data

IF()	1
INDIRECT()	\$I\$183
ERROR.TYPE()	#N/A

## Functions

TRUE()	1.00
FALSE()	-
NA()	#N/A

## Test Functions

Functions and Operators	True Expressions	False Expressions
ISBLANK()	\$1.00	\$0.00
ISERR()	\$1.00	\$0.00
ISERROR()	\$1.00	\$0.00
ISLOGICAL()	\$0.00	\$0.00
ISNA()	\$1.00	\$0.00
ISNONTEXT()	\$1.00	\$0.00
ISNUMBER()	\$1.00	\$0.00
ISREF()	\$1.00	\$0.00
ISTEXT()	\$1.00	\$0.00

## Sample Data

	1
Err:508	1
#N/A	1
1	1
#N/A	1
1	Text
1	Text
A1	1
Text	1



## Functions

Dept.	Qty Sold
9	19
3	129
3	234
12	199
9	126
12	45

Dave	Ed
28,500	30,000

## Functions

3	12
234	199

## Sample Formatting

### Simple

	Jan	Feb	Mar
Bill	28	195	388
Joe	868	825	24
Fred	727	765	996
	1623	1785	1408

### Accounting 1

		Jan	Feb	Mar
Bill	\$	243.00	\$ 904.00	\$ 133.00
Joe		717.00	392.00	211.00
Fred		299.00	924.00	739.00
	\$	1,259.00	\$ 2,220.00	\$ 1,083.00

### Colorful 1

	Jan	Feb
Bill	533	405
Joe	13	247
Fred	908	255
	1454	907

### 3D Effects 1

	Jan	Feb	Mar
Bill	936	420	846
Joe	100	972	107
Fred	865	466	195
	1901	1858	1148

### Accounting 2

		Jan	Feb	Mar
Bill	\$	258.00	\$ 402.00	\$ 573.00
Joe		846.00	885.00	967.00
Fred		401.00	124.00	663.00
	\$	1,505.00	\$ 1,411.00	\$ 2,203.00

### Colorful 2

	Jan	Feb
Bill	876	175
Joe	238	651
Fred	771	921
	1885	1747

### 3D Effects 2

	Jan	Feb	Mar
Bill	751	110	82
Joe	75	152	647
Fred	474	301	792
	1300	563	1521

### Accounting 3

		Jan	Feb	Mar
Bill	\$	856.00	\$ 152.00	\$ 962.00
Joe		610.00	427.00	260.00
Fred		4.00	64.00	630.00
	\$	1,470.00	\$ 643.00	\$ 1,852.00

### Colorful 3

	Jan	Feb
Bill	505	917
Joe	280	996
Fred	688	988
	1473	2901

### Classic 3

	Jan	Feb	Mar
Bill	401	423	307
Joe	800	655	513
Fred	702	848	166
	1903	1926	986

### Accounting 4

		Jan	Feb	Mar
Bill	\$	983.00	\$ 4.00	\$ 315.00
Joe		86.00	628.00	214.00
Fred		950.00	920.00	459.00
	\$	2,019.00	\$ 1,552.00	\$ 988.00

### List 1

	Jan	Feb
Bill	715	829
Joe	503	332
Fred	377	674
	1595	1835

<b>Mar</b>	<b>List 2</b>			
	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	
475	Bill	196	781	797
243	Joe	949	708	981
260	Fred	855	848	574
978		2000	2337	2352

<b>Mar</b>	<b>List 2</b>			
	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	
649	Bill	418	874	80
264	Joe	78	944	205
629	Fred	100	800	49
1542		596	2618	334

<b>Mar</b>	<b>Classic 1</b>			
	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	
629	Bill	348	329	41
717	Joe	593	86	258
53	Fred	128	714	696
1399		1069	1129	995

<b>Mar</b>	<b>Classic 2</b>			
	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	
215	<b>Bill</b>	713	332	511
233	<b>Joe</b>	540	621	174
397	<b>Fred</b>	269	825	705
845		1522	1778	1390

## Number Formatting

Category	Format	Cell Data	Result	Cell Data
<b>General</b>	General	1	1	-1
<b>Currency</b>	\$#,##0_);(\$#,##0)	1	\$1	-1
	\$#,##0_);[RED](\$#,##0)	1	\$1	-1
	\$#,##0.00_);(\$#,##0.00)	1	\$1.00	-1
	\$#,##0.00_);[RED](\$#,##0.00)	1	\$1.00	-1
<b>Fixed</b>	0	1	1	-1
	0.00	1	1.00	-1
	#,##0	1	1	-1
	#,##0.00	1	1.00	-1
	#,##0_);(#,##0)	1	1	-1
	#,##0_);[RED](#,##0)	1	1	-1
	#,##0.00_);(\$#,##0.00)	1	1.00	-1
	#,##0.00_);[RED](\$#,##0.00)	1	1.00	-1
<b>Percents</b>	0%	0	0%	0
	0.00%	0	0.00%	0
<b>Fraction</b>	# ??/?	1	1	-1
	# ??/??	1	1	-1
<b>Scientific</b>	0.00E+00	1	1.00E+00	-1
<b>Accounting</b>	_\$* #,##0_);_(\$* (#,##0);_(\$* "-"_)	1	\$ 1	-1
	_(\$* #,##0_);_(\$* (#,##0);_(\$* "-"_);_(@	1	1	-1
	_\$* #,##0.00_);_(\$* (#,##0.00);_(\$	1	\$ 1.00	-1
	_(\$* #,##0.00_);_(\$* (#,##0.00);_(\$* "-"	1	1.00	-1
<b>Date</b>	m/d/yy	3/4/1995	3/4/1995	
	d-mmm-yy	3/4/1995	4-Mar-95	
	d-mmm-yy	3/4/1995	4-Mar	
	mmm-yy	3/4/1995	Mar-95	
	m/d/yy h:mm	3/4/1995	3/4/1995 0:00	
	ddd	3/4/1995	Sat	
<b>Time</b>	h:mm AM/PM	0:00	12:00 AM	
	h:mm:ss AM/PM	0:00	12:00:00 AM	
	h:mm	0:00	0:00	
	h:mm:ss	0:00	0:00:00	
	m/d/yy h:mm	###	1/1/1995 0:00	
	mm:ss	0:00	00:00	
	mm:ss.0	0:00	00:00.0	
	[h]:mm:ss	0:00	0:00:00	

## Formats 2

Custom	#,##0"CR";#,##0"DR";0	123	123CR	-123
	#, "K"	10000	10000K	-10000
	#,##0[BLUE];#,##0[YELLOW]	123	123	-123
	_\$**#,##0.00_);_(\$**#,##0.00);_(\$	1	\$*****1.00	-1
	[Cyan][<100]General;[Blue][>=100]	99	99	101
	"Sales="#,##0.00	123	Sales=123.00	
	000-00-0000	123456789	123-45-6789	
	;;; (Hides the Cell)	123		

Result	
	-1
	(\$1)
	(\$1)
	(\$1.00)
	(\$1.00)
	-1
	-1.00
	-1
	-1.00
	(1)
	(1)
	(1.00)
	(1.00)
	0%
	0.00%
	-1
	-1
	-1.00E+00
\$	(1)
	(1)
\$	(1.00)
	(1.00)

123DR  
-10000K  
123  
\$\*\*\*\*\* (1.00)  
101





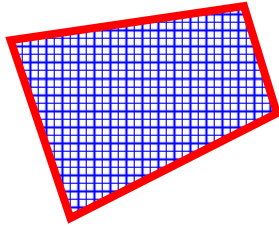
Border Formatting		
Style 1	Style 4	Style 7
Style 2	Style 5	Underline
Style 3	Style 6	Double

Font Attributes				
Size	Size	Size	Size	Size
	Center Across Multiple Cells			
Regular	Fill Fill Fill	Justify Me	Wrapped Text	Wrapped Text
Colors	Strikeout	Underline	Double	Bold/Italic

Patterns				

## Worksheet Objects

Polygon



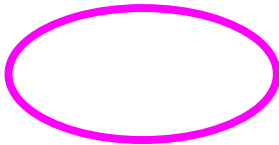
Button

Rectangle



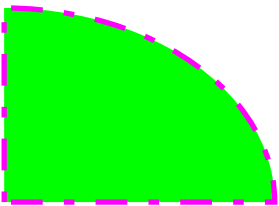
Check Box

Oval

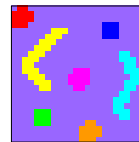


List Box

Arc



Bitmaps



Line



Metafiles

