TI calculator screen (and buttons)

TI-82 STATS, TI-84

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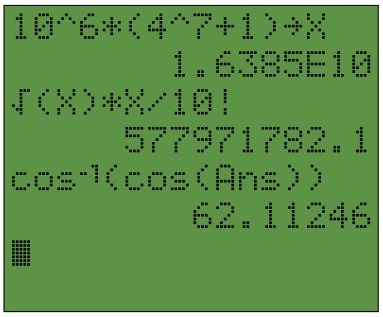
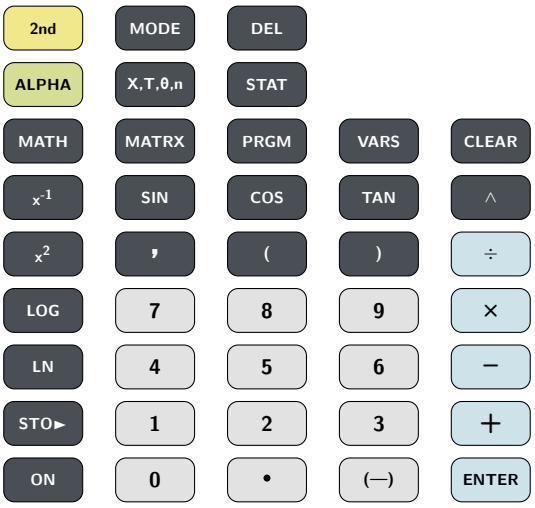
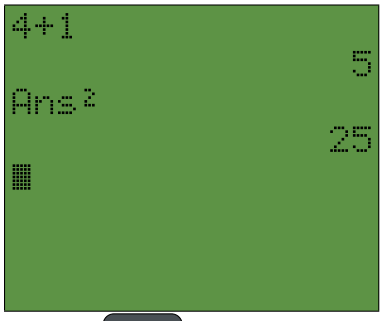




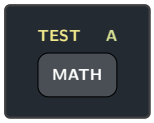
Contents

1 Quickstart



Lorem 

ipsum



Source

```
%\usepackage[color]{tiscreen}

\tiscreen
|4+1               |
|                 5|
|Ans{sq}           |
|                25|
|{fcur}            |
|                  |
|                  |
|                  |

Lorem \tibtnmath{} ipsum

\tibtnextramath
```

2 Package option(s)

2.1 Color

Using the `color` option will change the colors used by the `\LCD` command for printing the screen using `\tiscreen`. The colors are defined as `tiscreenfg` (foreground, i.e. font color) and `tiscreenbg` (background) and redefined like this:

Source

```
% Add this to your preamble
\definecolor{tiscreenbg}{HTML}{5d9345}
\definecolor{tiscreenfg}{HTML}{FFFFFF}
```

2.2 Defined colors

Name	Color	Usage
tiscreenfg	000000	LCD commands
tiscreenbg	5d9345	LCD commands
tibtngray	494F54	Buttons
tibtnyellow	F1E78B	Buttons
tibtngreen	D5DE93	Buttons
tibtnwhite	E2E2E2	Buttons
tibtnblue	CDE2E9	Buttons
tibtncaseblack	232A32	Buttons

Part I

Screen

3 LCD size

The default LCD size is 8×16 (the size of the TI-82 STATS). It can be changed by redefining the variables used to determine the size of the display or by using the original \LCD command.

Source

```
% First method (For entire document)
\def\tiscreenX{16}
\def\tiscreenY{8}

% Second method (Only once)
\LCD{5}{11}
|ANOTHER  |
|EXAMPLE  |
|WITH A   |
|DIFFERENT|
|SIZE     |
```

4 (Re)defined characters

Added characters

Name	Symbol	\LCD Code
E	E	{sciE}
σ	σ	{sigma}
Σ	Σ	{Sigma}
x^2	²	{sq}
x^{-1}	⁻¹	{ar}
x^3	³	{c3}
y^x	ˣ	{cx}
x_1	₁	{sub1}
x_2	₂	{sub2}
x_3	₃	{sub3}
x_4	₄	{sub4}
x_5	₅	{sub5}
x_6	₆	{sub6}
x_{10}	₁₀	{sub10}
$\bar{x}$	x̄	{barx}
$\bar{y}$	ȳ	{bary}
$-x$	⁻	{dash}

$\rightarrow$		{sto}
θ		{theta}
π		{pi}
η		{eta}
$+$		{tick}
$\circ$		{degree}
		{square}
		{alpha}
$\uparrow$		{2nd}
$\geq$		{geq}
$\leq$		{leq}
$\neq$		{neq}
x^3		{c3}
A^T		{transpose}
A^r		{upr}
chi		{chi}
$\triangleright$		{fwedge}
$\triangleleft$		{bwedge}
$\mathbf{N}$		{bbN}
/		{bb/}

Redefined characters

!		{!}
{		{lb}
}		{rb}
[		{[}
]		{]}
$\sqrt{x}$		{sqrt}
e		{e}
i		{i}
v		{v}
w		{w}
Ellipses	...	{ell}
Apostrophe	'	{'}
List		{L}
Underscore		{_}

Part II

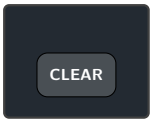
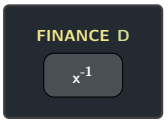
Buttons

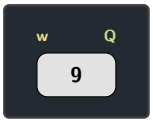
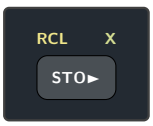
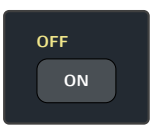
5 Usage

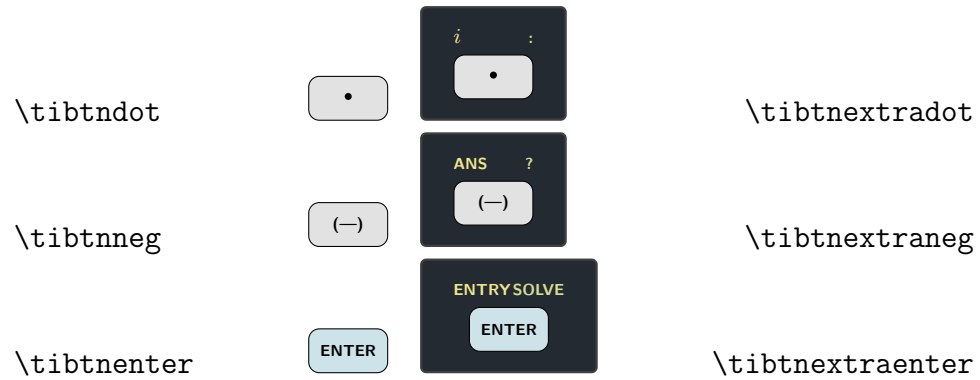
The `\tibtn<...>` commands only prints the button and are useful when displaying buttons inline. The `\tibtnextra<...>` commands shows the extra functionality of the button (accessed by the 2nd and ALPHA buttons). See secion 6 for defined buttons and section 7 for how to define custom buttons.

6 Defined buttons

`\tibtnsecond`	2nd	2nd	`\tibtnextrasecond`
`\tibtnmode`	MODE	QUIT MODE	`\tibtnextramode`
`\tibtndel`	DEL	INS DEL	`\tibtnextradel`
`\tibtnalpha`	ALPHA	A-LOCK ALPHA	`\tibtnextraalpha`
`\tibtnxton`	X,T,θ,n	LINK X,T,θ,n	`\tibtnextraxton`
`\tibtnstat`	STAT	LIST STAT	`\tibtnextrastat`
`\tibtnmath`	MATH	TEST A MATH	`\tibtnextramath`
`\tibtnmatrix`	MATRX	ANGLE B MATRX	`\tibtnextramatrix`
`\tibtnprgm`	PRGM	DRAW C PRGM	`\tibtnextraprgm`
`\tibtnvars`	VARS	DISTR VARS	`\tibtnextravars`

\tibtnclear	CLEAR		\tibtnextraclear
\tibtnxnone	x^{-1}		\tibtnextraxnone
\tibtnsin	SIN		\tibtnextrasin
\tibtncos	COS		\tibtnextracos
\tibtntan	TAN		\tibtnextratan
\tibtnpower	^		\tibtnextrapower
\tibtnxtwo	x^2		\tibtnextraxtwo
\tibtncomma	,		\tibtnextracomma
\tibtnleftparen	(		\tibtnextraleftparen
\tibtnrightparen	)		\tibtnextrarightparen
\tibtndiv	÷		\tibtnextradiv
\tibtnlog	LOG		\tibtnextralog
\tibtnseven	7		\tibtnextraseven
\tibtneight	8		\tibtnextraeight

\tibtnnine			\tibtnextranine
\tibtntimes			\tibtnextratimes
\tibtnln			\tibtnextraln
\tibtnfour			\tibtnextrafour
\tibtnfive			\tibtnextrafive
\tibtnsix			\tibtnextrasix
\tibtnminus			\tibtnextraminus
\tibtnsto			\tibtnextrasto
\tibtnone			\tibtnextraone
\tibtntwo			\tibtnextratwo
\tibtnthree			\tibtnextrathree
\tibtnplus			\tibtnextraplus
\tibtnon			\tibtnextraon
\tibtnzero			\tibtnextrazero

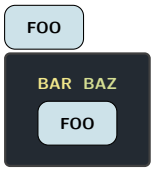


7 Custom buttons

Buttons are defined using the `\tibtn` and `\tibtnextra`. It's often convenient to define a `\tibtn` command then use it inside `\tibtnextra` (See example below). See section 2.2 for a list of defined colors.

`\tibtn[<text color>]{<button color>}{<text>}`

`\tibtnextra{<middle>}{<top left>}{<top right>}`



Source

```
1 \def\tibtnfoo{\tibtn[black]{tibtnblue}{FOO}}
2 \tibtnfoo{}
3
4 \def\tibtnextrafoo{\tibtnextra{\tibtnfoo}{BAR}{BAZ}}
5 \tibtnextrafoo
```