

## The T<sub>E</sub>X ruler

This is the T<sub>E</sub>X ruler, a measuring device for typographical designers working with T<sub>E</sub>X. It includes ordinary rulers in inches, centimeters, and picas. It can be used to measure font sizes, baseline distances, and rule weights. The design is based on a ruler by Inge Eijkhout, implementation in T<sub>E</sub>X is by Victor Eijkhout.

The T<sub>E</sub>X ruler is shareware: you can give it away, but you are not allowed to ask money for it, regardless of the medium you use. You are not allowed to cut this manual page from the source, dvi, or postscript file. If you want to show your appreciation, send a contribution to the address below.

How to format and print this file

This file will give you three pages. Most likely the second one cannot be handled by your printer, but I've included it for completeness. At the top of the source file, 3 fonts are declared. Please change the CM fonts to something more pretty, eg Helvetica.

How to use the T<sub>E</sub>X ruler

Rulers. Use them like ordinary rulers. It is suggested that you print the T<sub>E</sub>X ruler on transparent plastic and cut the edges along the rulers.

Baseline distances. Put the top line along the baseline of some line of text. Then see in what column the other lines of text line up.

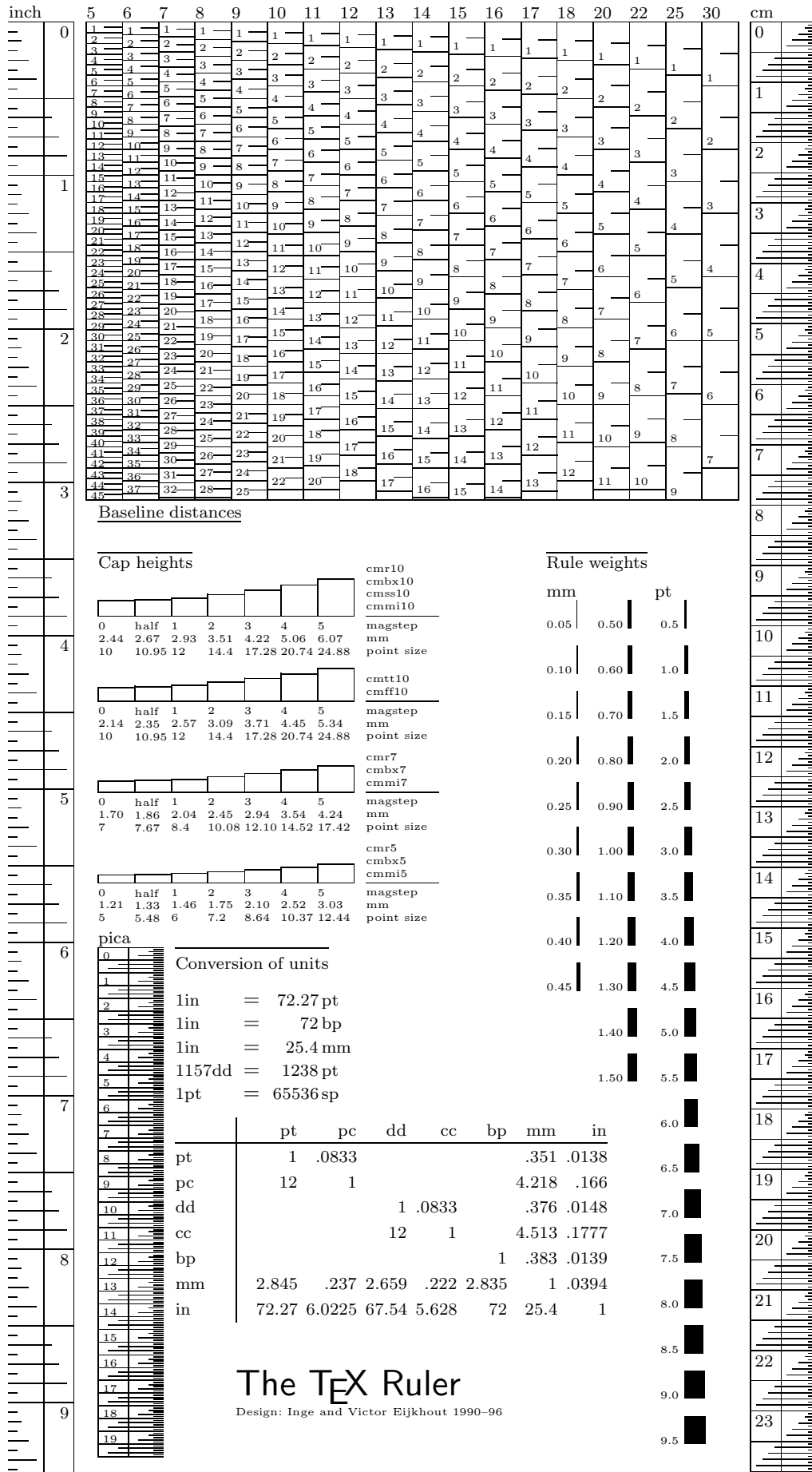
Font sizes: cap height. Take an uppercase letter such as 'K' or 'H'. Find the line with its font name, or use the first line. See what box on that line it fits in best, with the character completely between the lines. Read out the magnification and size of the font. Alternately check on all lines which box fits best, then read out the size.

General remark: all lines have a width of .05 millimeter. This is less than the dot width of a 300dpi laser printer, so beware of some inaccuracies. Also your printer driver may introduce inaccuracies.

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Baseline distances

Cap heights

Rule weights

0	half	1	2	3	4	5	magstep	mm	point size
2.44	2.67	2.93	3.51	4.22	5.06	6.07	cmr10		
10	10.95	12	14.4	17.28	20.74	24.88	cmss10		
0	half	1	2	3	4	5	magstep		
2.14	2.35	2.57	3.09	3.71	4.45	5.34	cmr7		
10	10.95	12	14.4	17.28	20.74	24.88	cmss7		
0	half	1	2	3	4	5	magstep		
1.70	1.86	2.04	2.45	2.94	3.54	4.24	cmr5		
7	7.67	8.4	10.08	12.10	14.52	17.42	cmss5		
0	half	1	2	3	4	5	magstep		
1.21	1.33	1.46	1.75	2.10	2.52	3.03	cmr10		
5	5.48	6	7.2	8.64	10.37	12.44	cmss10		

pica

Conversion of units

lin	=	72.27 pt
lin	=	72 bp
lin	=	25.4 mm
1157dd	=	1238 pt
lpt	=	65536 sp

	pt	pc	dd	cc	bp	mm	in
pt	1	.0833				.351	.0138
pc	12	1				4.218	.166
dd			1	.0833		.376	.0148
cc			12	1		4.513	.1777
bp					1	.383	.0139
mm	2.845	.237	2.659	.222	2.835	1	.0394
in	72.27	6.0225	67.54	5.628	72	25.4	1

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Design: Inge and Victor Eijkhout 1990-96