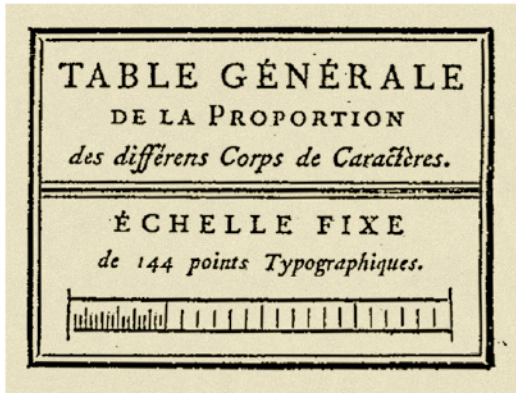
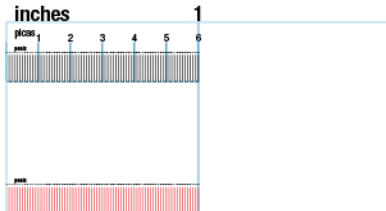
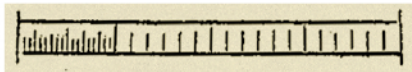
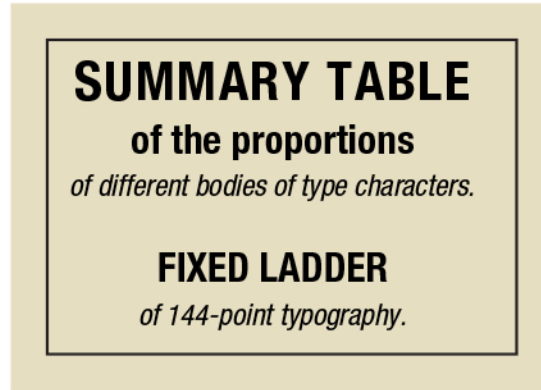


In typography, there are two measurement standards; **one is *set***  
***the other is fluid.***

# The one that is *set*-in-stone; points, picas, & inches



In 1764 AD Pierre-Simon Fournier publishes his 'Manuel Typographique' introducing the point system, which is still in use today.

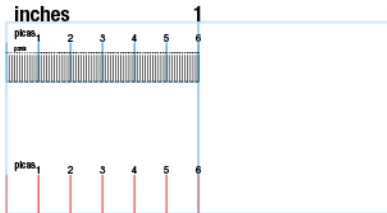
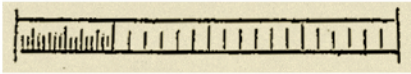


## ***The Point***

The name comes from the Latin punctum (a prick, little hole, puncture, a spot, or other small area).

The system became more formalized as it was promoted by another Frenchman, and well-known printer – François-Ambroise Didot (1730–1801).

# The one that is *set*-in-stone; points, picas, & inches

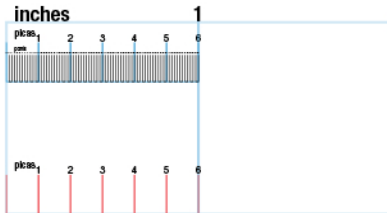
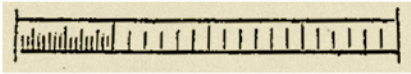


## *The Pica*

A pica is a typesetting unit of measurement commonly used for measuring lines of type. One pica equals 12 points. There are 6 picas to an inch.

Typically, pica is used for measuring the width and depth of columns and margins. Points are used to measure smaller elements on a page such as type and leading.

# The one that is *set*-in-stone; points, picas, & inches



*Remember:*

*12 points in one pica, 6 picas in one inch, and 72 points in one inch.*

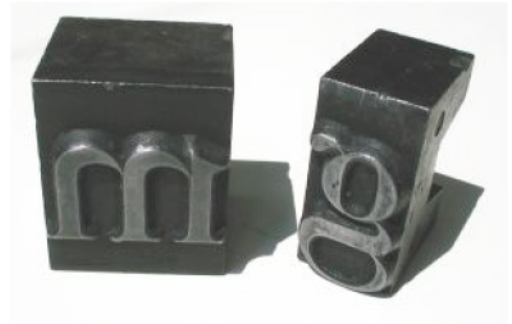
*Point, pica to inch conversions are as follows:*

- One point =  $1/72$  of an inch
- One pica =  $1/6$ "
- One inch = 72 points
- One inch = 6 picas

*Point to pica conversions are as follows:*

- One point =  $1/12$  of a pica
- One pica = 12 points

# The one that is *set*-in-stone; points, picas, & inches



Type measurements were based the size of the metal block. Today it is a digital block.

When letterforms are cast into lead, the letter stands, raised from the body of the piece of type. The point size of the font size is determined by the height of the block.

# More information about *points*.

## Points on the screen

The point is the usual unit for measuring font size and leading and other minute items on a printed page. This system was notably promoted by John Warnock and Charles Geschke, the inventors of Adobe PostScript, and therefore it is sometimes also called PostScript point.

In metal type, the point size of the font described the size (height) of the metal body on which the typeface's characters were cast. In digital type, the body is now an imaginary design space, but is used as the basis from which the type is scaled (see em).

On the web, (on a 72 pixel per inch screen) one computer type point corresponds with one image pixel.

*Shown actual size*

10 point M

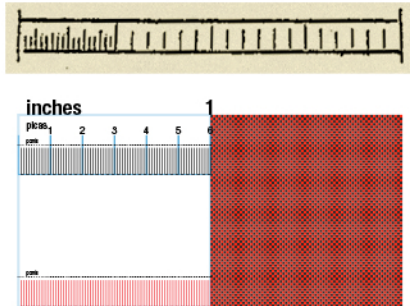
iM  
vector

iM  
pixel

40 point M

iM  
vector

iM  
pixel

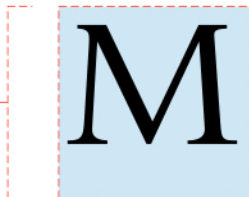


# The one that is *fluid*; ems & ens.

## em

a unit of **relative measurement**, nominally equal to the width of a capital letterform. So, 1 em in a 18 point typeface is 18 points.

72 point font  
equals a 72 point **em**



**one em**  
72 point font equals  
a 72 point em

## en

a unit of **relative measurement**, equal to 1/2 em. If 12 point type is being set, then one en is 6 points.



**one en**  
half of an em  
72 point font equals  
a 36 point en

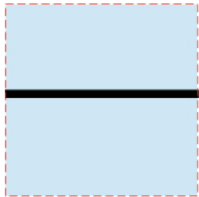
# The one that is *fluid*; ems & ens.

Ems and ens also apply to dashes

## **em dash**

in theory, equal to  
the width of an em

Keys:  
*alt, shift hyphon*



## **en dash**

in theory, equal to  
the width of an en

Keys:  
*alt, hyphon*



## **hyphon**

yes, the hyphon  
sits lower to  
the baseline

*hyphon key*





# The one that is *fluid*, ems & ens.

## How to use the various dashes

### Hyphen

1. To show word breaks
2. To show an addition to a word  
"pro-American"

### en Dash

1. Most often the en dash is used to express a range of numbers:  
Pages 10 – 23; 100 – 300 participants; January – May 2009.  
or  
August 13–August 18, or pages 29–349. (*Note that there should be no space around the en dash.*)
2. It can also stand for the words and versus between two words/terms of equal weight:  
...the Israeli – Palestinian Peace Conference.
3. The storied "compound adjective hyphen," an event so rare in the English language that proofreaders shiver with excitement whenever they come across it. Basically "pro-American" gets a regular hyphen because "American" is only one word, whereas "pro-Falkland Islands" gets an en dash because "Falkland Islands" is two words. So, too phrases like "Civil War-era."

### em Dash

*(The dash works somewhat like parentheses or commas, but it is used where a stronger punctuation is needed).*

1. Used to indicate a break in thought or independent clause from the rest of the sentence.  
Lizzy gave me a terrible haircut — and she expected a tip!  
(*Independent clause — thought.*)  
  
Sam—even though she fears clinics terribly — went to the doctor with me today. (*Independent clause — thought — independent clause.*)
2. In dialogue, dashes are used to indicate interrupted speech.  
"But I — But you said — ... wait, what?" stammered Edna.
3. Dashes can also be used to emphasize a sentence.  
Of course, I'll sign a prenuptial agreement — as long as it's in my favor! (*Note some experts suggest no spaces be used before and after the em dash in a sentence.*)