

Engineering Lettering

Objectives

- ◆ Tips and Techniques
- ◆ Lettering
- ◆ Patience and practice needed

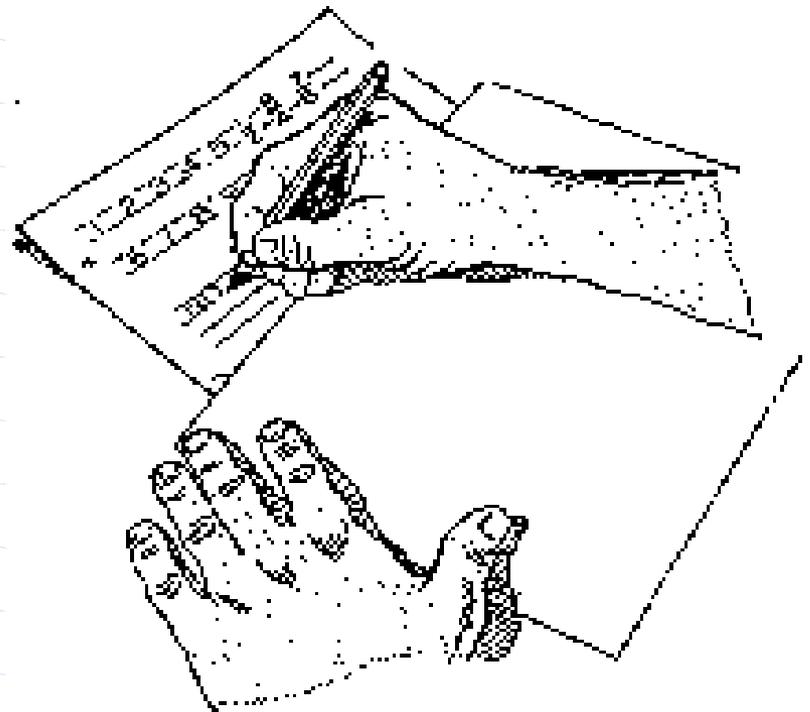


Lettering Notes

- ◆ Lettering Guidelines – Handout
- ◆ Lettering Styles
 - Shape of Letters
 - Order of Drawing Lines
- ◆ Character Uniformity
- ◆ Spacing

Pencil Techniques

- ◆ The best pencil for lettering on most surfaces are the H, F, and HB grades.
- ◆ Hold your pencil in the position shown. It should make approximately a 60° angle with the paper.



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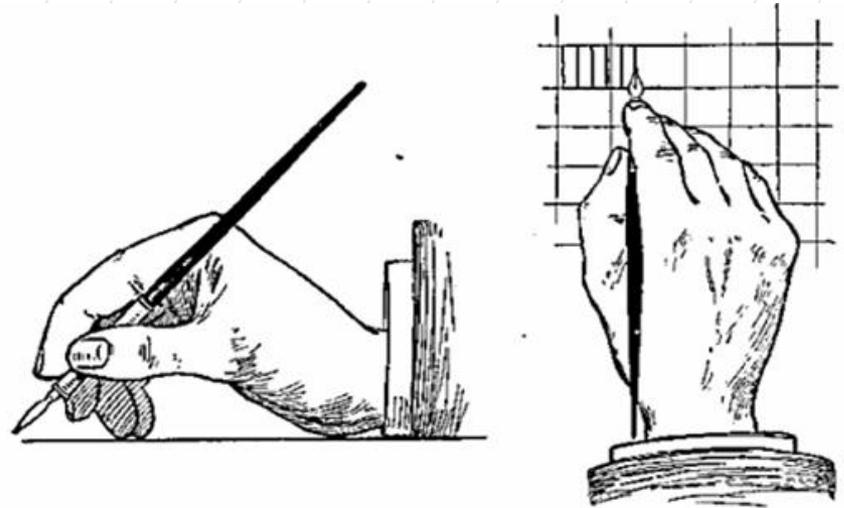
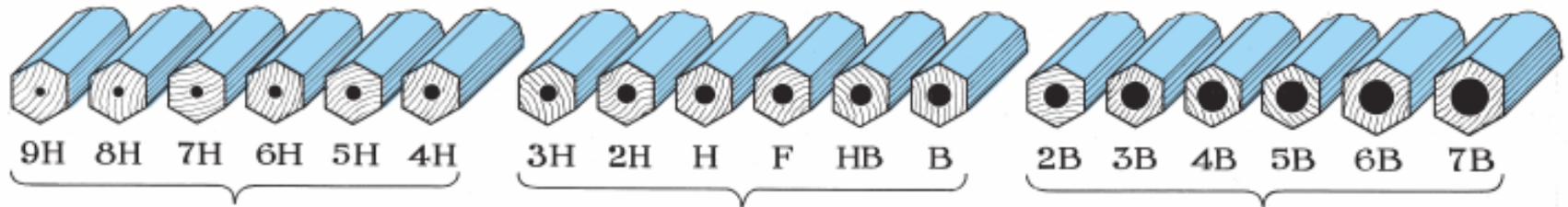


FIG. 105.—Position for lettering.

Pencil Lead Designation



◆ Note: Reverse order below

SOFT FREE HAND DRAWING					MEDIUM FREE HAND DRAWING AND GENERAL LAYOUT					HARD TECHNICAL DRAWING						
6B	5B	4B	3B	2B	B	HB	F	H	2H	3H	4H	5H	6H	7H	8H	9H

Freehand Lettering

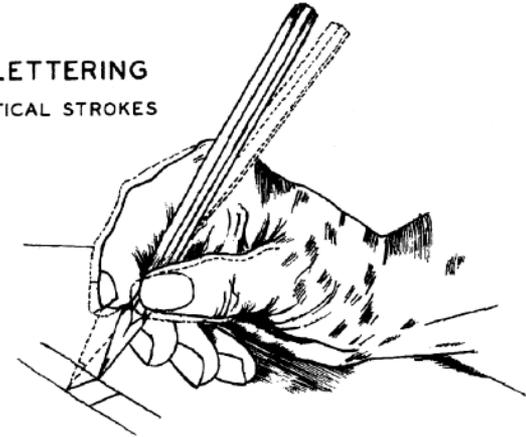
Developing good lettering is a personal skill which takes practice. Letters must be formed properly.

They must be open shaped very legible.

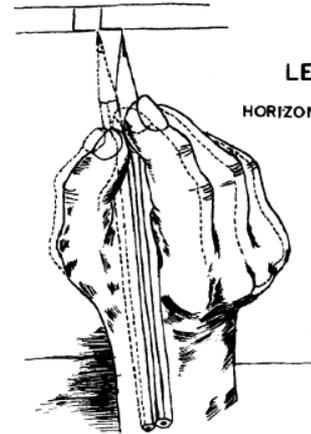
Clear communication is essential to avoid mistakes and reduce waste.

Lettering may be done using a drafting type pencil, lead holder or technical pen. Which ever tool is used, the letters must properly formed and very black

LETTERING
VERTICAL STROKES



LETTERING
HORIZONTAL STROKES



VERTICAL CAPITALS

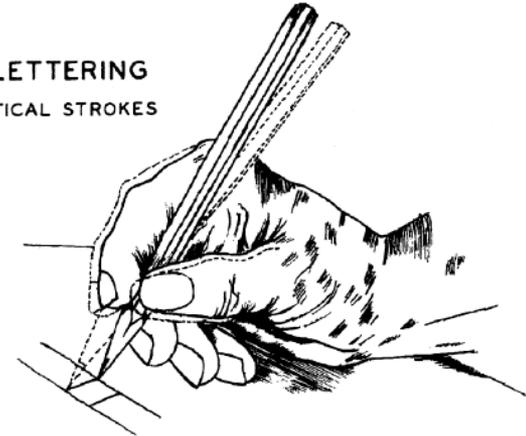
Freehand Lettering

Pull the pencil or pen across the paper. All lettering strokes should be a pulling motion.

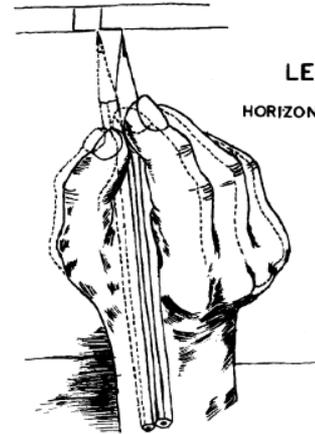
Right-handed and left-handed drafters may have to develop different styles for forming letters.

Press down hard when using a pencil.

LETTERING
VERTICAL STROKES



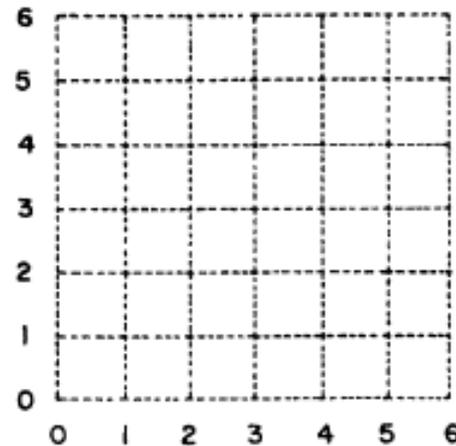
LETTERING
HORIZONTAL STROKES



VERTICAL CAPITALS

Freehand Lettering

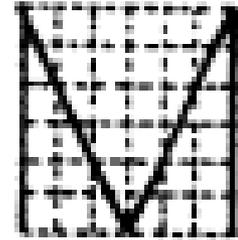
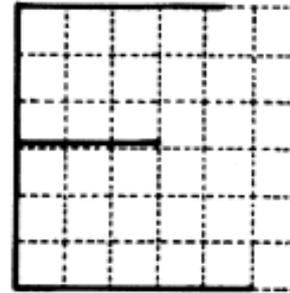
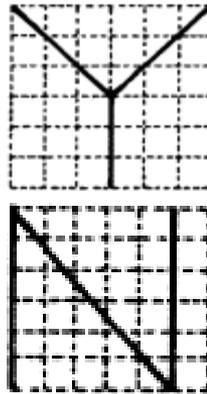
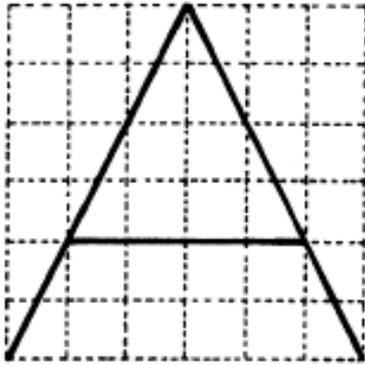
VERTICAL CAPITALS



Vertical capital letters are preferred for most technical work. They are formed within a 6 by 6 grid.

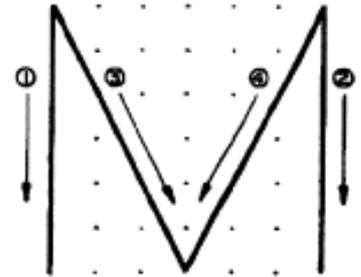
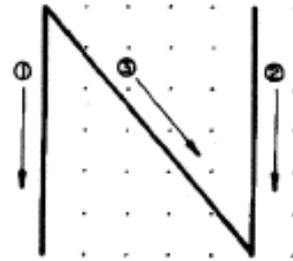
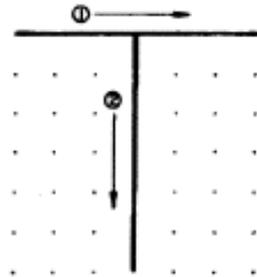
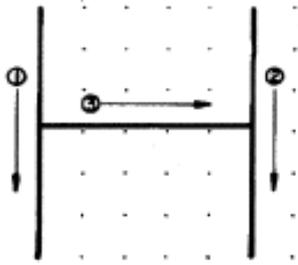
Straight Line letters

VERTICAL CAPITALS



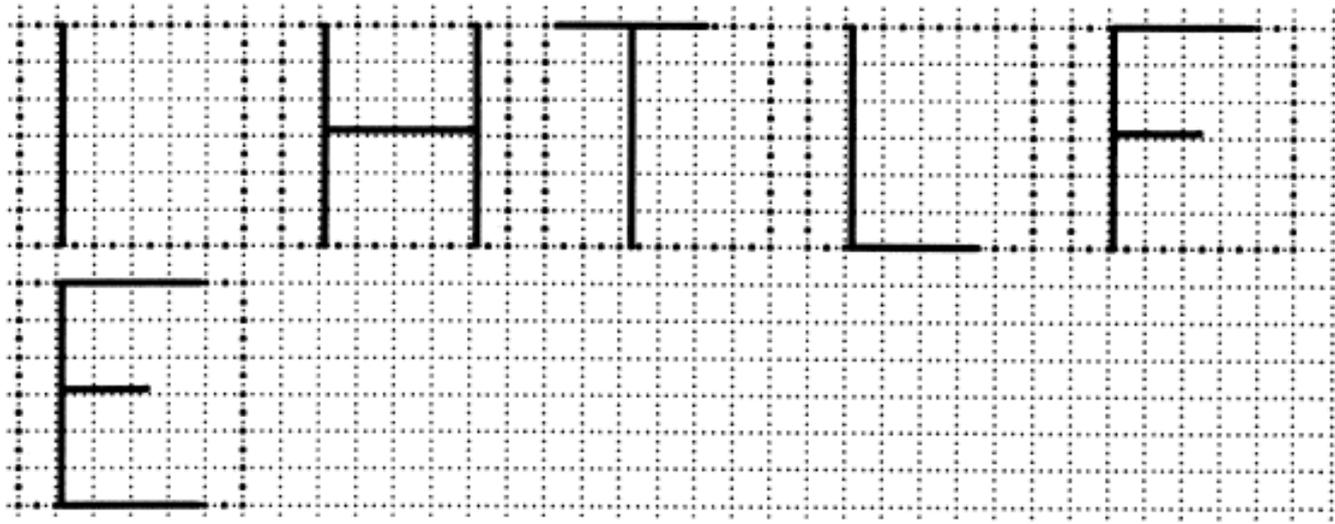
Most letters are slightly narrower than they are tall. The shapes of the letters are as open as possible. Letters with small loops and crossing strokes are avoided

Straight Line letters



This sequence is recommended to assure that each letter is the correct width in relation in height. For example, form the two vertical sides of the "H", "N" and "M" first. Form the top of the "T" first.

Straight Line letters



The “H” and “N” are slightly narrower than they are tall.

The “T” and the “M” are just as wide as they are tall

Note: Proportion: width vs. height is very important in forming letters.

Lettering

- ◆ The style of engineering lettering we will use in this course is **Single Stroke Gothic Lettering**
 - Notice that only capital letters are demonstrated, since we will use only capital letters on drawings

Single Stroke Gothic Lettering

A B C D E F G
H I J K L M N
O P Q R S T U
V W X Y Z &

Single Stroke Gothic Lettering



EXAMPLE OF VERTICAL
ENGINEERING LETTERING.

Single Stroke Gothic Lettering



A B C D E F G

H I J K L M N

O P Q R S T U

V W X Y Z & £

EXAMPLE OF INCLINED
ENGINEERING LETTERING.

Single Stroke Gothic Lettering



THE IMPORTANCE OF GOOD LETTERING CANNOT BE OVER-EMPHASIZED. THE LETTERING CAN MAKE OR BREAK AN OTHERWISE GOOD DRAWING.

PENCIL LETTERING SHOULD BE DONE WITH A FAIRLY SOFT SHARP PENCIL AND SHOULD BE CLEAN-CUT AND DARK. ACCENT THE ENDS OF THE STROKES.

EXAMPLES OF GOOD COMPOSITION
USING ENGINEERING LETTERING.

Single Stroke Gothic Lettering



ESTIMATE

ESTIMaTE

Letters not uniform in style.

ESTIMATE

Letters not uniform in height.

ESTIMATE

ESTIMATE

Letters not uniformly vertical or inclined.

ESTIMATE

ESTIMATE

Letters not uniform in thickness of stroke.

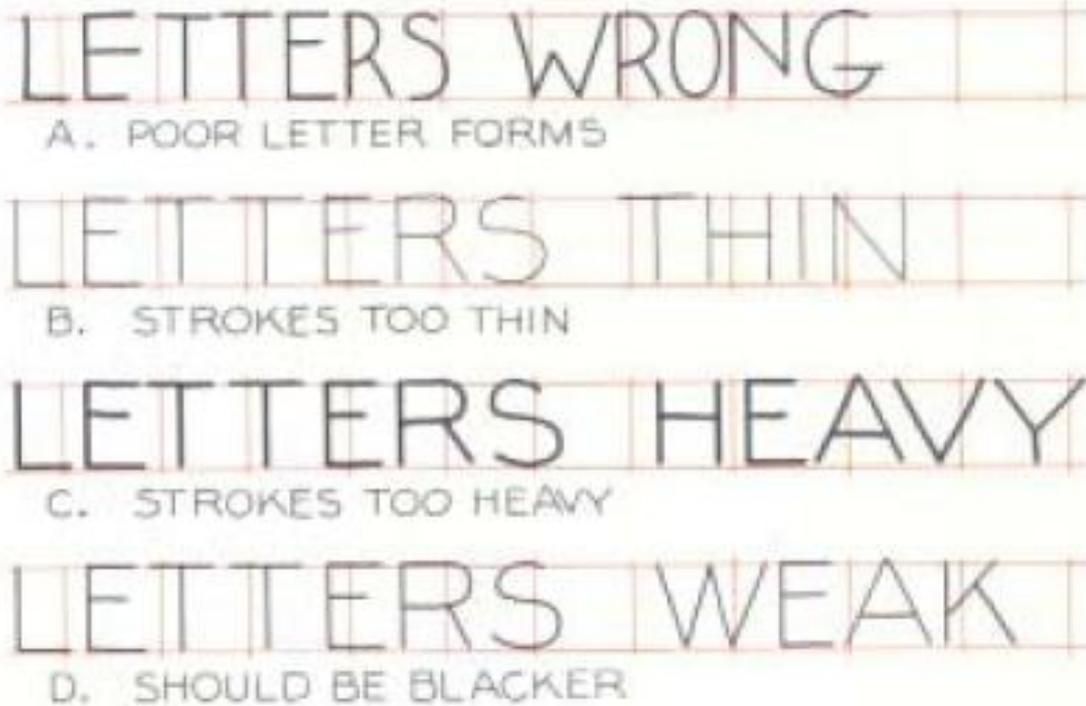
ESTIMATE

ESTIMATE

Areas between letters not uniform.

EXAMPLES OF LETTERING ERRORS

Single Stroke Gothic Lettering



LETTERS WRONG

A. POOR LETTER FORMS

LETTERS THIN

B. STROKES TOO THIN

LETTERS HEAVY

C. STROKES TOO HEAVY

LETTERS WEAK

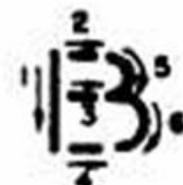
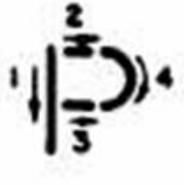
D. SHOULD BE BLACKER

EXAMPLES OF LETTERING ERRORS

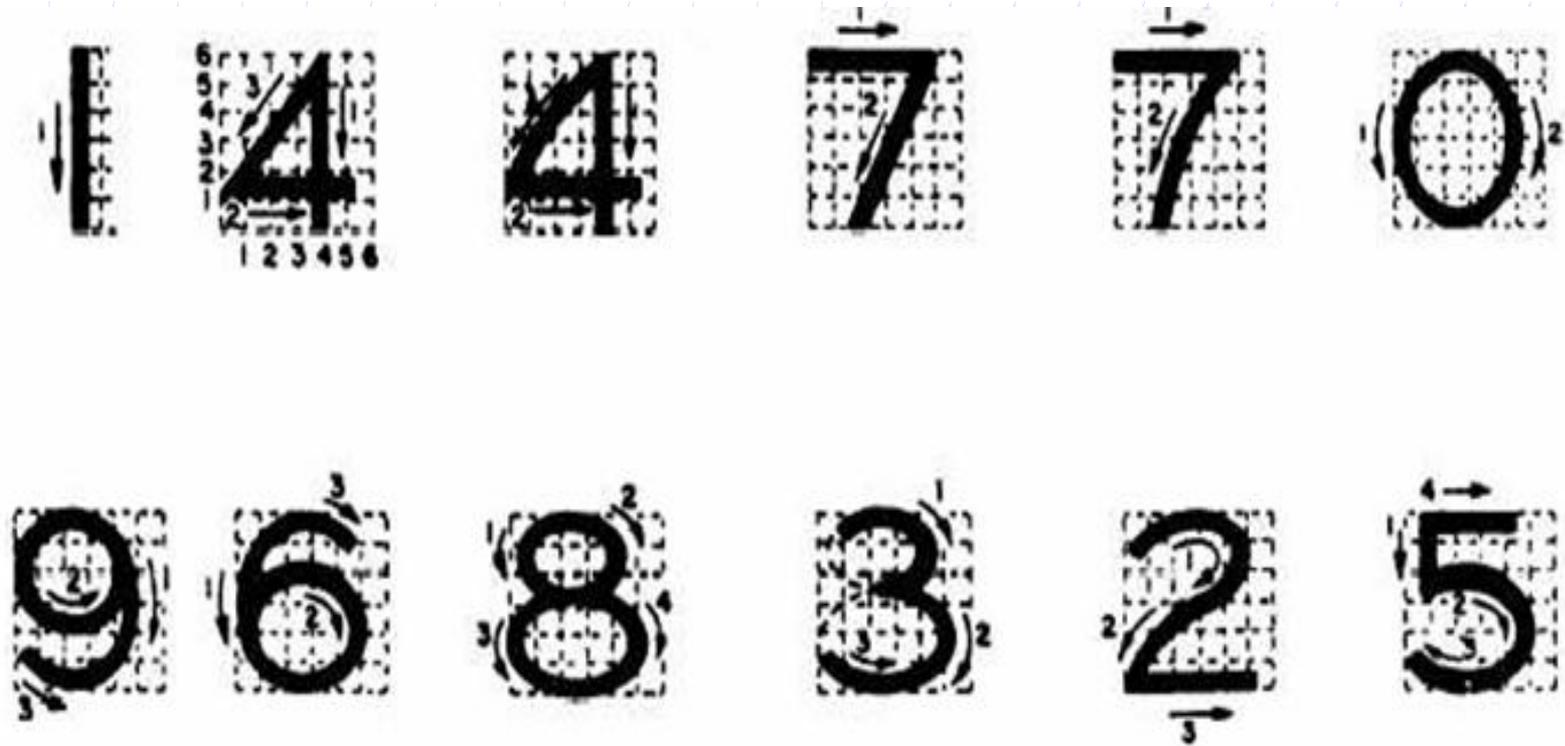
Lettering – Vertical Gothic Font



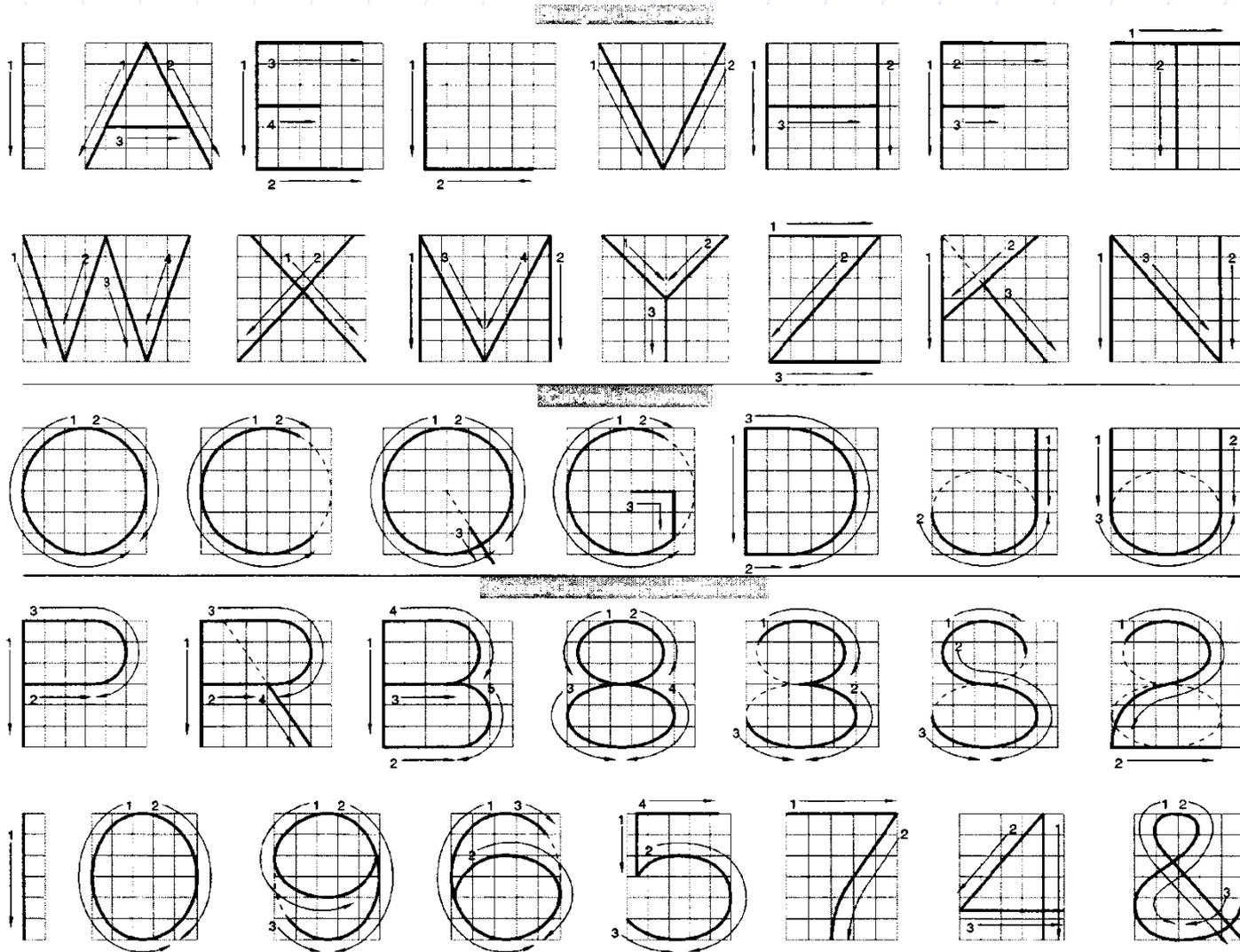
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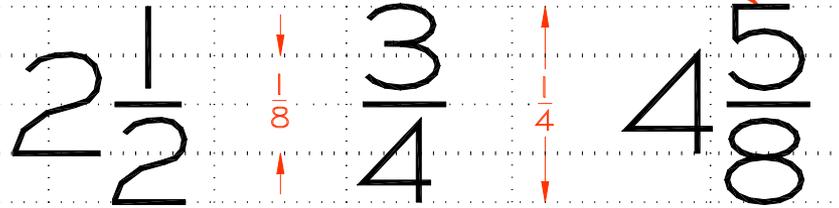


Lettering – Vertical Gothic Font

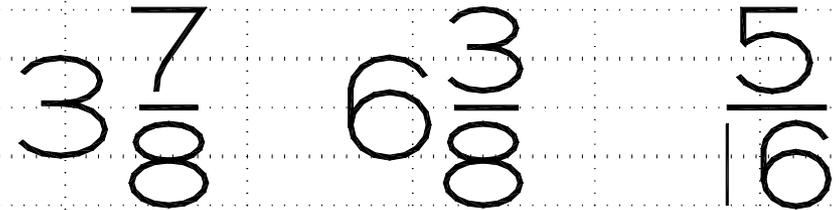


Lettering with Fractions

Fractions twice as tall



$\frac{1}{16}$ apart



Spaces

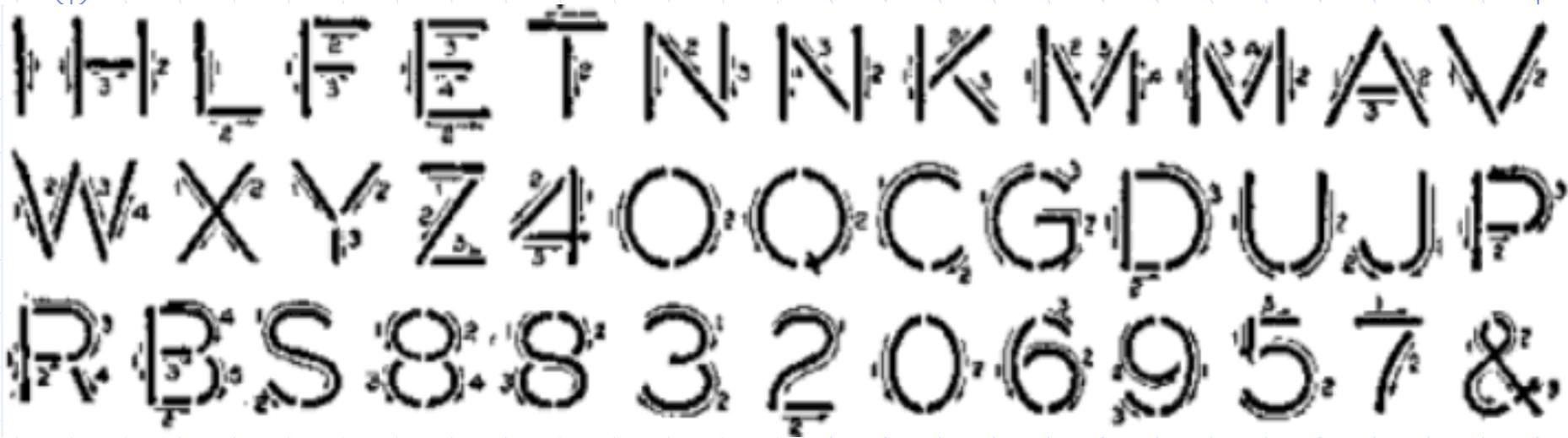
(a)

(b)

(c)

(d)

Your Turn! Practice Engineering Lettering



Order and direction of Strokes

