

Working with Fractions

1 $\frac{2}{3}$ " Most fonts will have the common fractions $\frac{1}{2}$ $\frac{1}{4}$ and $\frac{3}{4}$, and Times New Roman also contains the fractions $\frac{1}{3}$ $\frac{2}{3}$ $\frac{1}{8}$ $\frac{3}{8}$ $\frac{5}{8}$ $\frac{7}{8}$. Palatino Linotype includes the full range of fractions supported by Unicode, including the less common fractions $\frac{1}{5}$ $\frac{2}{5}$ $\frac{3}{5}$ $\frac{4}{5}$ $\frac{1}{6}$ $\frac{5}{6}$. Palatino contains the superscripts and subscripts, so one can compose any other fractions using the fraction slash, and they will always match the precomposed fractions for size, weight, and vertical position, e.g. $\frac{3}{4}$ " \equiv $\frac{3}{4}$ "

Palatino Linotype also has stacking fractions, *a.k.a.* "Nut Fractions," which are preferable for use with measurements. However, unless

Stacking Fractions > Precomposed Fractions > True Super/subscripts > Text Formatting

Pali: $1\frac{2}{3}$ " $4\frac{5}{8}$ " > $1\frac{2}{3}$ " $4\frac{5}{8}$ " > $1\frac{2}{3}$ " $4\frac{5}{8}$ " > $1\frac{2}{3}$ " $4\frac{5}{8}$ "

Palatino: n/a > $1\frac{2}{3}$ " $4\frac{5}{8}$ " > $1\frac{2}{3}$ " $4\frac{5}{8}$ " > $1\frac{2}{3}$ " $4\frac{5}{8}$ "

Times: n/a > $1\frac{2}{3}$ " $4\frac{5}{8}$ " > n/a > $1\frac{2}{3}$ " $4\frac{5}{8}$ "

Guru: $1\frac{2}{3}$ " $4\frac{5}{8}$ " > $1\frac{2}{3}$ " $4\frac{5}{8}$ " > $1\frac{2}{3}$ " $4\frac{5}{8}$ " > $1\frac{2}{3}$ " $4\frac{5}{8}$ "

Notes:

1. The stacking fractions in Palatino Linotype cannot be used without OpenType Support.
2. The denominators of precomposed (shilling) fractions are aligned on the baseline, but subscripts (scientific inferiors for use in formulae like H₂O) bisect the baseline.
3. If using text formatting, the superscripts in Palatino Linotype are too low. This is due to (what I regard as) faulty metrics in the font. The recommended alignment for superscripts is with the tops of figures.
4. Times New Roman has no subscripts, and not all superscripts.
5. The fraction slash / usually works better than the forward slash / but it is not found in all fonts.

An application like PagePlus that supports OpenType features is best for entering and editing fractions as one can just type $1/2$ and it will automatically be converted to $\frac{1}{2}$ or $\frac{1}{2}$ — as desired.

the application supports OpenType features, they won't be available to use. **1 $\frac{2}{3}$ "**

My own fonts include a full range of Unicode fractions, superscripts and subscripts, plus stacking fractions in the Private Use Area, so they can be used in PagePlus or any other application that supports Unicode (e.g. OpenOffice Writer). Measurements look best with stacking fractions, precomposed fractions are better than fractions composed using true super/subscripts, and both are better than fractions composed using text formatting.

Using Autocorrect:

Applications that don't support OpenType features can make use of autocorrect to replace typed fractions with the desired Unicode character. I have set up PagePlus to replace $1/2$ etc., with the more common shilling fractions: $\frac{1}{2}$ $\frac{1}{4}$ $\frac{3}{4}$ $\frac{1}{3}$ $\frac{2}{3}$ $\frac{1}{5}$ $\frac{2}{5}$ $\frac{3}{5}$ $\frac{4}{5}$ $\frac{1}{6}$ $\frac{5}{6}$ $\frac{1}{8}$ $\frac{3}{8}$ $\frac{5}{8}$ $\frac{7}{8}$

I have also added autocorrect entries to replace 1_2 etc., with $\frac{1}{2}$ $\frac{1}{4}$ $\frac{3}{4}$ $\frac{1}{3}$ $\frac{2}{3}$ $\frac{1}{5}$ $\frac{2}{5}$ $\frac{3}{5}$ $\frac{4}{5}$ $\frac{1}{6}$ $\frac{5}{6}$ $\frac{1}{8}$ $\frac{3}{8}$ $\frac{5}{8}$ $\frac{7}{8}$

If the intended use is for measurements, the autocorrect entries could include the inch mark, thus: $\frac{1}{16}$ $\frac{3}{16}$ $\frac{5}{16}$ $\frac{7}{16}$ $\frac{9}{16}$ $\frac{11}{16}$ $\frac{13}{16}$ $\frac{15}{16}$ $\frac{1}{32}$ $\frac{3}{32}$ $\frac{5}{32}$ $\frac{7}{32}$ $\frac{9}{32}$ $\frac{11}{32}$ $\frac{13}{32}$ $\frac{15}{32}$

$\frac{17}{64}$ $\frac{19}{64}$ $\frac{21}{64}$ $\frac{23}{64}$ $\frac{25}{64}$ $\frac{27}{64}$ $\frac{29}{64}$ $\frac{31}{64}$ $\frac{33}{64}$ $\frac{35}{64}$ $\frac{37}{64}$ $\frac{39}{64}$ $\frac{41}{64}$ $\frac{43}{64}$ $\frac{45}{64}$ $\frac{47}{64}$ $\frac{49}{64}$
 $\frac{51}{64}$ $\frac{53}{64}$ $\frac{55}{64}$ $\frac{57}{64}$ $\frac{59}{64}$ $\frac{61}{64}$ $\frac{63}{64}$

Install a font that supports the characters needed because fractions created using text formatting will not look as good as characters designed for the job. The stacking fractions above are also kerned with the " mark.