Decimals

You can shorten decimals and make approximately equivalent decimals by rounding.

Rounding to the nearest tenth.

Drop all numbers to the right of hundredths.
If the number in the hundredths place is greater than or equal to 5, round up one tenth.
If the number in the hundredths place is smaller than 5, round down one tenth.

Examples

Round 4.235 to the nearest tenth.
4.235 → 4.23 3 is less than 5.
Round down → **4.2**

Round 4.265 to the nearest tenth.
4.265 → 4.26 6 is more than 5.
Round up → **4.3**

Round to the nearest tenth.

4.123	2.6419	1.1212
3.578	2.654	8.321
6.6548	.99	.218

Rounding to the nearest hundredth.

Drop all numbers to the right of thousandths.
If the number in the thousandths place is greater than or equal to 5, round up one hundredth.
If the number in the thousandths place is smaller than 5, round down one hundredth.

Examples

Round 7.4325 to the nearest hundredth.
7.4325 → 7.432 2 is less than 5.
Round down → **7.43**

Round 7.4385 to the nearest hundredth.
7.4385 → 7.438 8 is more than 5.
Round up → **7.44**

Round to the nearest hundredth.

7.265	2.69758	5.56498
3.569	2.4589	9.2327
4.512	3.2100	4.117

Decimals

To convert a fraction to a decimal, divide the numerator by the denominator.

$\frac{3}{8} = 8\overline{)3}$

$$
\begin{array}{r}
.375 \\
8\overline{)3.00} \\
\underline{24} \\
60 \\
\underline{56} \\
40 \\
\underline{40}
\end{array}
$$

Add 0's

Check answer by multiplying.

$$
\begin{array}{r}
.375 \\
\times \quad 8 \\
\hline
3.000
\end{array}
$$

Convert these fractions to decimals.

$\frac{3}{4}$	$\frac{5}{8}$	$\frac{1}{25}$
$\frac{3}{50}$	$\frac{7}{20}$	$\frac{4}{5}$
$\frac{3}{75}$	$\frac{7}{8}$	$\frac{3}{16}$
$\frac{5}{32}$	$\frac{7}{25}$	$\frac{9}{20}$