Def'n: Decimal   System

BASED ON   POWERS OF 10

$528 \quad = \quad 5 \times 10^2 + 2 \times 10^2 + 8 \times 10^0$

$10^0 = 1$

$\quad = \quad 500 + 20 + 8 \times 1$

$\quad = 528$

$528.35 \quad = 5 \times 10^2 + 2 \times 10^2 + 8 \times 10^0 + 3 \times 10^{-1} + 5 \times 10^2$

MILLIONS	HUNDRED THOUSANDS	TEN THOUSANDS
10^6	10^5	10^4

THOUSANDS	HUNDREDS	TENS	UNITS
10^3	10^2	10^1	10^0

TENTHS	HUNDREDTHS	THOUSANDTHS
10^{-1}	10^{-2}	10^{-3}

TEN THOUSANDTHS	HUNDRED THOUSANDTHS
10^{-4}	10^{-5}

MILLIONTHS
10^{-6}

I.   COMMUTATIVE   LAWS

$4.51 + 3.57 = 3.57 + 4.51$

$(4.51)(3.57) \quad = \quad (3.57)(4.51)$

II.   ASSOCIATIVE   LAWS

$(7.03 + 58.6) + 1.20 = 7.03 + (58.6 + 1.20)$

$(7.03 \times 58.6) \times 1.20 = 7.03 \times (58.6 \times 1.20)$

III.   DISTRIBUTIVE   LAWS

$3.95 (10.5 + 5.93) = (3.95 \times 10.5) + (3.95 \times 5.93)$

ADDITION   OF   DECIMALS

$$\begin{array}{r} 3.2916 \\ + 4.6834 \\ \hline 7.9750 \end{array}$$

$$\begin{array}{r} 0.2193 \\ + 2.5816 \\ + 7.9021 \\ \hline 10.7030 \end{array}$$

SUBTRACTION OF DECIMALS

$$23.12089$$
$$-14.31692$$
$$8.80397$$

MULTIPLICATION OF DECIMALS

$$3.92 \times 3.64$$

$$1.23 \times 4.27$$

$$
\begin{array}{r}
0.316 \\
\times\ 8.924 \\
\hline
\end{array}
$$

$$
\begin{array}{r}
1.23 \\
\times\ 4.27 \\
\hline
0.0021 \\
0.006 \\
0.12 \\
0.014 \\
0.04 \\
0.8 \\
4.27 \\
\hline
5.2521
\end{array}
$$

$$
\begin{array}{r}
3.92 \\
\times\ 3.64 \\
\hline
0.0008 \\
0.012 \\
0.06 \\
0.0036 \\
0.54 \\
2.7 \\
0.12 \\
1.8 \\
9.0 \\
\hline
14.2688
\end{array}
$$

DIVISION OF DECIMALS

$$1.257 \div 0.402 \qquad 357.129 \div 0.512$$

$$64.78 \div 12.9$$

$$0.402 \overline{)1.257}$$

$$
\begin{array}{r}
696.17 \\
0.512 \overline{)357.129} \\
-356 \\
\hline
0.758
\end{array}
$$

A: 696.17 ⊤ 0.375

CACC: A=697.26

MY A: 696.17

$$
\begin{array}{r}
0.512 \\
\times\ 600 \\
\hline
307.8
\end{array}
$$

$$
\begin{array}{r}
307.8 \\
+\ 46.08 \\
\hline
353.88
\end{array}
$$

$$
\begin{array}{r}
0.512 \\
\times\ 90 \\
\hline
108 \\
45 \\
46.08
\end{array}
$$

$$
\begin{array}{r}
357.129 \\
-\ 353.88 \\
\hline
003.249
\end{array}
$$

CALC. 4-0:
my A: 696.17

NEED

MUCH MORE 10^{-4}
10^4 DIVISION PRACTIVE

353.88   003.249

512   1024   2048^{x4} 2500^{x8}
                          3.072

696
× 0.512   0.758   0.887
                + 0.129   − 0.512
356.352   0.887   0.375

3150
÷ 512
≈ 7