

Monday, Dec 14th

Multiplication of Decimals

ex #1

$$\begin{array}{r}
 2.64 \rightarrow \text{2 digits after the decimal} \\
 \times 1.2 \rightarrow \text{1 digit after the dec.} \\
 \hline
 + 528 \\
 + 2640 \\
 \hline
 3.168
 \end{array}$$

Total: 3
 In the answer, we have 3 digits after the dec.

ex #2

$$\begin{array}{r}
 6.432 \rightarrow \text{3 digits after.} \\
 \times 0.2 \rightarrow \text{1 digit after.} \\
 \hline
 + 12864 \\
 + 00000 \\
 \hline
 1.2864
 \end{array}$$

Total: 4 digits after the dec. in the answer

ex Powers of 10

$$10^0 = 1$$

$$10^1 = 10$$

$$10^2 = 100$$

$$10^3 = 1000$$

$$10^4 = 10000$$

etc
⋮

$$2.64 \times 10 = 26.4$$

$$2.64 \times 100 = 264.0$$

↓
264

$$2.64 \times 1000 = 2640$$

or
2640.0
~~2640.~~

ex

$$0.00048672 \times 10^6 = 486.72$$

ex

$ \begin{array}{r} 3 \leftarrow \text{2} \\ 0.64 \\ \times 0.64 \\ \hline 256 \\ + 3940 \\ \hline 0.4096 \end{array} $

$$(10)^2 \times (0.64)^2$$

$$= 100 \times 0.4096$$

$$= 40.96$$