

NAME: _____

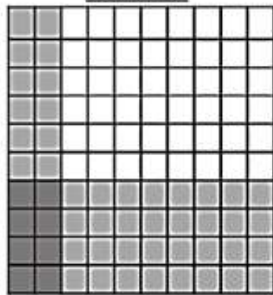
DECIMAL MULTIPLICATION

Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Whole Number Algorithm

$$\begin{array}{r} 2 \\ \times 4 \\ \hline 8 \end{array}$$

Picture



Decimal Algorithm

$$\begin{array}{r} 0.2 \text{ ----> } 1 \text{ decimal place} \\ \times 0.4 \text{ ----> } + 1 \text{ decimal place} \\ \hline 0.08 \text{ <---- } 2 \text{ decimal places} \end{array}$$

Since both of the factors are less than 1, the product is going to be less than each of the factors.

Check with Fractions

$$\frac{2}{10} \times \frac{4}{10} = \frac{8}{100} = 0.08$$

*Darker part is answer where the 2 decimals cross.

Directions: Solve the following problems. Be sure to add the decimal places of the factors to place in the product.

1) $\begin{array}{r} 0.9 \\ \times 0.6 \\ \hline 0.54 \end{array}$

2) $\begin{array}{r} 0.7 \\ \times 0.3 \\ \hline 0.21 \end{array}$

3) $\begin{array}{r} 0.1 \\ \times 0.4 \\ \hline 0.04 \end{array}$

4) $\begin{array}{r} 0.8 \\ \times 0.9 \\ \hline 0.72 \end{array}$

5) $\begin{array}{r} 0.6 \\ \times 0.6 \\ \hline 0.36 \end{array}$

6) $\begin{array}{r} 0.5 \\ \times 0.8 \\ \hline 0.4 \end{array}$

7) $\begin{array}{r} 0.3 \\ \times 0.2 \\ \hline 0.06 \end{array}$

8) $\begin{array}{r} 0.8 \\ \times 0.4 \\ \hline 0.32 \end{array}$

9) $\begin{array}{r} 0.5 \\ \times 0.7 \\ \hline 0.35 \end{array}$

10) $\begin{array}{r} 0.2 \\ \times 0.9 \\ \hline 0.18 \end{array}$

11) $\begin{array}{r} 0.1 \\ \times 0.5 \\ \hline 0.05 \end{array}$

12) $\begin{array}{r} 0.3 \\ \times 0.9 \\ \hline 0.27 \end{array}$

How Did You Do? 😊 😐 ☹️