

HOMEWORK: 1- 63 odd

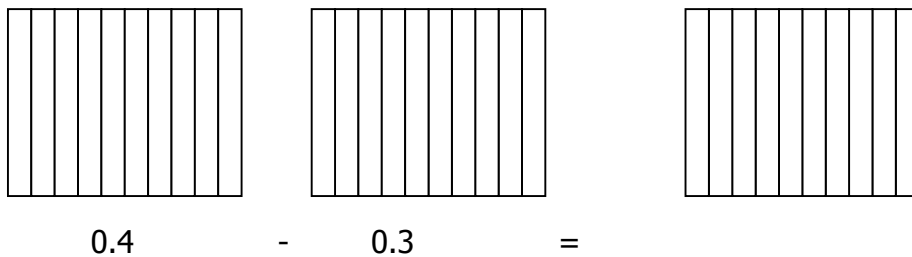
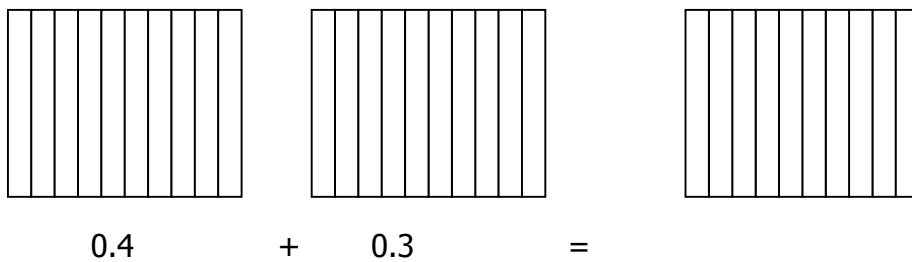
OBJECTIVES:

- Employ pictorial models to represent decimals and decimal arithmetic.
- Develop and explain procedures for decimal arithmetic.
- Identify common error patterns.

1. **ADDING & SUBTRACTING DECIMALS:** To add & subtract terminating decimal numbers, vertically line up the numbers using their decimal points and add the numbers (as usual) inserting the decimal point in the answer.

$$\begin{array}{r} 4.57 \\ + 1.34 \\ \hline \end{array} \qquad \begin{array}{r} 4.57 \\ - 1.34 \\ \hline \end{array}$$

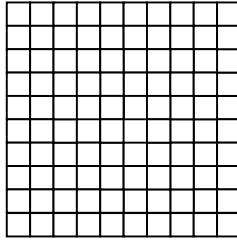
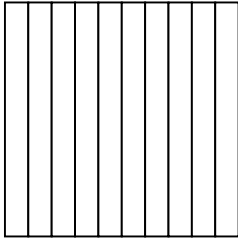
2. **PICTORIAL MODEL FOR ADDING & SUBTRACTING DECIMALS:**



3. **MULTIPLYING DECIMALS:** To multiply two terminating decimal numbers, line the numbers up by their rightmost digit, multiply (as usual), the number of decimal places in the product is equal to the sum of decimal places in the two numbers.

$$\begin{array}{r} 4.5 \\ \times 1.32 \\ \hline \end{array}$$

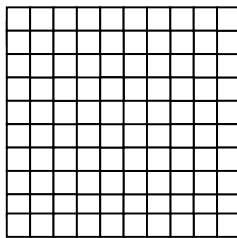
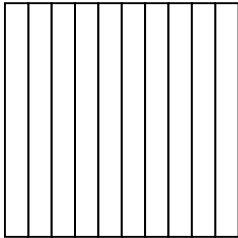
4. PICTORIAL MODEL FOR MULTIPLYING DECIMALS: $.7 \times .3$



5. DIVIDING DECIMALS: To divide two terminating decimal numbers, convert the problem so that you have a whole number divisor, divide (as usual), and place the decimal point in the quotient directly over the decimal point in the dividend.

$$0.8 \overline{)1.24}$$

6. PICTORIAL MODEL FOR DIVIDING DECIMALS:



$$0.8 \div 4$$

7. COMMON ERROR PATTERNS:

$$\begin{array}{r} 0.6 \\ + 0.3 \\ \hline 0.9 \end{array} \quad \begin{array}{r} 0.8 \\ + 0.9 \\ \hline 0.17 \end{array} \quad \begin{array}{r} 0.7 \\ + 0.6 \\ \hline 0.13 \end{array}$$

$$\begin{array}{r} 0.6 \\ \times 0.9 \\ \hline 5.4 \end{array} \quad \begin{array}{r} 0.3 \\ \times 0.2 \\ \hline 0.6 \end{array} \quad \begin{array}{r} 0.7 \\ \times 0.3 \\ \hline 2.1 \end{array}$$