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Basic Math Operations with Decimals - Guided Lesson Explanation

Explanation#1

Step 1) We can make an equivalent decimal by writing extra zeroes to the right of a decimal.

The decimals 0.9, 0.90, and 0.9000 are all equivalent. So let's make 4.9, 4.90. We begin to subtract from right to left. In the ones column 0 is much smaller than 8, so we bring a 1 down from the tens column.

$$\begin{array}{r} {\scriptstyle 8\ \ 10} \\ 4.\cancel{9}\,\cancel{0} \\ -\ 3.58 \\ \hline 1.32 \end{array}$$

The difference is 1.32

Explanation#2

Step 1) Count the total number of decimal places in both factors. Move the decimal point one place to the left for each decimal place you counted.

To make the problem easier, put the number with fewer digits on the bottom. That is already done for us.

$$\begin{array}{r} 8.6 \\ \times\ 2.9 \\ \hline \end{array}$$

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Multiply as we would multiply whole numbers without decimal points.

$$\begin{array}{r} 8\ 6 \\ \times\ 2\ 9 \\ \hline 2494 \\ \hline \end{array}$$

Count the total number of decimal places in the factors. There is 1 decimal place in 8.6 and 1 decimal place in 2.9. There are 2 decimal places in all. Move the decimal point 2 places to the left in the answer.

2494 ⟶ 24.94

Write the answer:

8.6 × 2.9 = 24.94

Explanation#3

Step 1) Divide until there is no remainder.

$$\begin{array}{r} 86.0 \\ \hline 0.3\overline{)\ 25.8} \\ -24 \\ \hline 18 \\ 18 \\ \hline 0 \end{array}$$

The quotient is 86.0