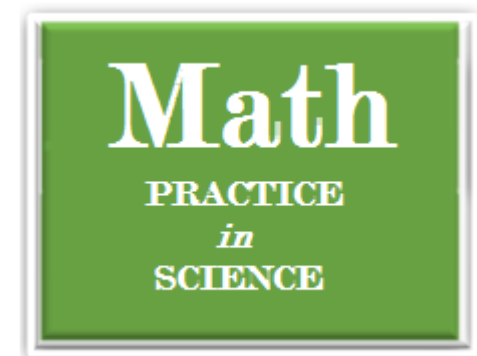


053 Math Practice

Multiplying Decimals



When you multiply decimals, you follow the same rules that you use to multiply whole numbers.

There is a simple rule to follow to find out where to insert the decimal point in your answers. Count the decimal places in each factor. Add them up. In the products, start at the right and count over that number of decimal places. Write your decimal point there.

Examples:

Find the product of 3.17 and 21.5.

$$\begin{array}{r}
 3.17 \quad 2 \text{ places} \\
 \times 21.5 \quad 1 \text{ place} \\
 \hline
 1585 \\
 317 \\
 634 \\
 \hline
 68.155 \quad 3 \text{ places}
 \end{array}$$

Find the product of 41.1 and 0.213.

$$\begin{array}{r}
 41.1 \quad 1 \text{ place} \\
 \times .213 \quad 3 \text{ places} \\
 \hline
 1233 \\
 411 \\
 822 \\
 \hline
 8.7543 \quad 4 \text{ places}
 \end{array}$$

Find the product of these decimals.

1. $\begin{array}{r} 2.1 \\ \times 4.3 \\ \hline \end{array}$

2. $\begin{array}{r} 3.6 \\ \times .41 \\ \hline \end{array}$

3. $\begin{array}{r} 6.1 \\ \times 1.2 \\ \hline \end{array}$

4. $\begin{array}{r} 8.9 \\ \times 2.1 \\ \hline \end{array}$

5. $\begin{array}{r} 6.2 \\ \times .85 \\ \hline \end{array}$

6. $\begin{array}{r} .81 \\ \times .95 \\ \hline \end{array}$

7. $\begin{array}{r} 5.19 \\ \times 4.3 \\ \hline \end{array}$

8. $\begin{array}{r} 3.62 \\ \times 1.5 \\ \hline \end{array}$

9. $\begin{array}{r} 11.5 \\ \times 4.6 \\ \hline \end{array}$

10. $\begin{array}{r} 31.4 \\ \times 6.3 \\ \hline \end{array}$

11. $\begin{array}{r} 8.21 \\ \times .21 \\ \hline \end{array}$

12. $\begin{array}{r} 9.12 \\ \times 6.3 \\ \hline \end{array}$

13. $\begin{array}{r} 4.23 \\ \times 1.03 \\ \hline \end{array}$

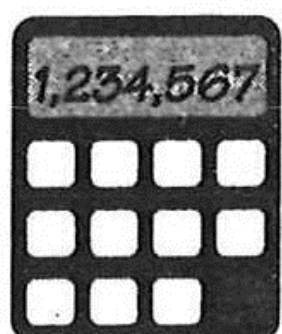
14. $\begin{array}{r} 51.2 \\ \times 2.06 \\ \hline \end{array}$

15. $\begin{array}{r} 30.1 \\ \times 2.05 \\ \hline \end{array}$

16. $\begin{array}{r} 6.15 \\ \times 30.3 \\ \hline \end{array}$

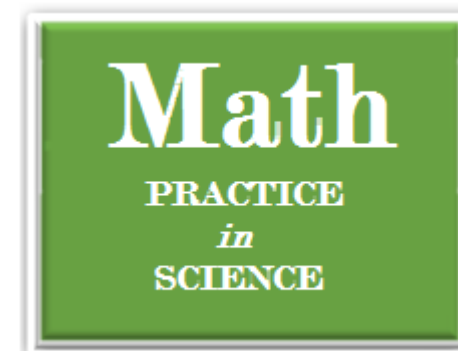
17. $\begin{array}{r} 1.18 \\ \times 2.09 \\ \hline \end{array}$

18. $\begin{array}{r} 8.11 \\ \times 1.01 \\ \hline \end{array}$



The Booster Club sold 90 boxes of oranges, 32 boxes of apples, and 41 boxes of grapefruit to raise money for new band uniforms. The Boosters charged \$4.50 a box for oranges, \$3.00 a box for apples, and \$5.00 a box for grapefruit. How much did the Booster Club earn from the fruit sales?

054 Math Practice



Adding Zeros When You Multiply

After you have done the multiplication in some problems, you may find that there are not enough place values to put the decimal point in the answer. Therefore, you add zeros to the left of the product.

Example: Find the product of 0.24 and 0.06.

Step 1: Find the product as shown.

$$\begin{array}{r} .24 \quad 2 \text{ places} \\ \times .06 \quad 2 \text{ places} \\ \hline 144 \end{array} \quad \left. \begin{array}{l} \text{2 places} \\ \text{2 places} \end{array} \right\} \rightarrow 4 \text{ places}$$

need 4 places

Step 2: Write zeros to the left of the product to make the total number of places needed.

$$0.24 \times 0.06 = .0144$$

Examples:

$$\begin{array}{r} 2.34 \quad 2 \text{ places} \\ \times .002 \quad +3 \text{ places} \\ \hline .00468 \quad 5 \text{ places} \end{array}$$

$$\begin{array}{r} .24 \quad 2 \text{ places} \\ \times .1 \quad +1 \text{ place} \\ \hline .024 \quad 3 \text{ places} \end{array}$$

Multiply. Write the decimal points in the proper place.

1. $\begin{array}{r} .46 \\ \times .05 \\ \hline \end{array}$

2. $\begin{array}{r} 3.19 \\ \times .02 \\ \hline \end{array}$

3. $\begin{array}{r} .56 \\ \times .09 \\ \hline \end{array}$

4. $\begin{array}{r} .069 \\ \times .018 \\ \hline \end{array}$

5. $\begin{array}{r} .623 \\ \times .005 \\ \hline \end{array}$

6. $\begin{array}{r} .923 \\ \times .03 \\ \hline \end{array}$

7. $\begin{array}{r} 7.85 \\ \times .003 \\ \hline \end{array}$

8. $\begin{array}{r} 2.19 \\ \times .04 \\ \hline \end{array}$

9. $\begin{array}{r} .615 \\ \times .009 \\ \hline \end{array}$

10. $\begin{array}{r} .005 \\ \times .005 \\ \hline \end{array}$

Find the products.

11. $\begin{array}{r} .251 \\ \times .05 \\ \hline \end{array}$

12. $\begin{array}{r} .351 \\ \times .08 \\ \hline \end{array}$

13. $\begin{array}{r} 1.09 \\ \times .001 \\ \hline \end{array}$

14. $\begin{array}{r} .029 \\ \times .024 \\ \hline \end{array}$

15. $\begin{array}{r} .118 \\ \times .01 \\ \hline \end{array}$

16. $\begin{array}{r} .412 \\ \times .06 \\ \hline \end{array}$

17. $\begin{array}{r} 1.45 \\ \times .009 \\ \hline \end{array}$

18. $\begin{array}{r} .023 \\ \times .025 \\ \hline \end{array}$

19. $\begin{array}{r} .006 \\ \times .011 \\ \hline \end{array}$

20. $\begin{array}{r} .141 \\ \times .07 \\ \hline \end{array}$