

Name _____

Date _____

Operations with Significant Figures Lesson

Solve the problem and round your answer to the proper number of significant figures.

$$53.2 \times 2.004 =$$



Explanation:

Note: This lesson focuses on the application of significant figures within operations. Products of decimals are outside the scope of this lesson. If the calculation gives you trouble, please visit our Products of Decimals section.

Step 1) Perform the decimal calculation.

$$53.2 \times 2.004 = 106.6128$$

As we can see our current answer has 7 significant digits.

Step 2) Determine the number of significant digits your final answer needs to be in.

To this we look at the number of significant digits that were present in the values we were asked to perform the operation on. Our final answer needs to be in the same number of significant digits as the least accurate (fewest significant digits) value we started with.

53.2 has 3 significant digits.

2.004 has 4 significant digits.

Our final answer needs to be in the same number significant digits as least accurate value (fewest significant digits). In this case, 3 significant digits.

Step 3) Convert our final answer to 3 significant digits.

106.6128 converted to 3 significant digits is 107.

Please note: while an answer of (106.) would be mathematically correct, the value would be less accurate.

