

Long Division

Dividing by a Two-Digit Number Resulting in a Decimal Answer

$$591 \div 12$$

Work out the answer to two decimal places.

1

answer section

$$\begin{array}{r} 4 \\ 12 \overline{) 591} \\ \underline{48} \\ 111 \end{array}$$

First, work out how many 12s there are in 59. The answer to this question is 4, which is written above the 9. We then write the product of 4 and 12 (48) under 59 and subtract giving 11. The 1 is then brought down and written next to 11 to make 111.

2

answer section

$$\begin{array}{r} 49 \\ 12 \overline{) 591} \\ \underline{48} \\ 111 \\ \underline{108} \\ 3 \end{array}$$

Next, work out how many 12s there are in 111. The answer to this question is 9, which is written above the 1. Then, write the product of 9 and 12 (108) under 111 and subtract it, giving 3.

3

answer section

$$\begin{array}{r} 49.0 \\ 12 \overline{) 591.00} \\ \underline{48} \\ 111 \\ \underline{108} \\ 300 \\ \underline{300} \\ 0 \end{array}$$

Extend 591 into decimals to continue the process of long division. The 0 in the tenths place is then brought down and written next to 3 to make 30.

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4

$$\begin{array}{r} \text{answer section} \\ 49.2 \\ \hline 12 \overline{) 591.00} \\ \underline{48} \\ 111 \\ \underline{108} \\ 30 \\ \underline{24} \\ 60 \\ \underline{60} \\ 0 \end{array}$$

Next, work out how many 12s there are in 30. The answer to this question is 2, which is written above the 0 in the tenths place. Then, write the product of 2 and 12 (24) under 30 and subtract it, giving 6. The 0 is then brought down and written next to 6 to make 60.

5

$$\begin{array}{r} \text{answer section} \\ 49.25 \\ \hline 12 \overline{) 591.00} \\ \underline{48} \\ 111 \\ \underline{108} \\ 30 \\ \underline{24} \\ .60 \\ \underline{.60} \\ 0 \end{array}$$

Next, find out how many 12s there are in 60. The answer to this question is 5, which is written above the 0 in the hundredths place. Then, write the product of 5 and 12 (60) under 60 and subtract it, giving zero.

$$591 \div 12 = 49.25$$