

Basic Arithmetic
Skill-Builder # W – 7B
Multiplying Whole Numbers with Trailing Zeros

When multiplying whole numbers with trailing zeros (zeros at the end of the number), there is no need to put the zeros when performing the multiplication – simply add the zeros after multiplying the nonzero digits.

Examples

1. $20 \times 300 \times 4,000$

Solution:

Multiply $2 \times 3 \times 4$ to get 6×4 which gives 24.

There are $1 + 2 + 3 = 6$ trailing zeros; put these 6 zeros after 4.

Thus, the product is 24,000,000.

2. $300 \times 20 \times 10,000 \times 100$

Solution:

Multiply $3 \times 2 \times 1 \times 1$ to get 6.

There are $2 + 1 + 4 + 2 = 9$ trailing zeros; put these 9 zeros after 6.

Thus, the product is 6,000,000,000.

3. $102,000 \times 30,000$

Solution:

Multiply 102 by 3.

$$\begin{array}{r} 102 \\ \times 3 \\ \hline 306 \end{array}$$

There are $3 + 4 = 7$ trailing zeros; put these after the 6 to get 3,060,000,000.

4. $60,013,000 \times 100,200$

Solution:

Multiply 60,013 by 1002.

$$\begin{array}{r} 60013 \\ \times 1002 \\ \hline 120026 \\ 600130 \\ \hline 6121326 \end{array}$$

There are $3 + 2 = 5$ trailing zeros and thus the product is 612,132,600,000.

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Multiply.

1. $100 \times 1,000 \times 10,000$

2. $6,000 \times 20,000$

3. $40 \times 5,000 \times 3,000,000$

4. $30,700 \times 13,010,000$

5. $10,010,000 \times 20,200$

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Answers

1. 1,000,000,000
2. 120,000,000
3. 399,407,000,000
4. 202,202,000,000

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