

Arithmetic
Skill-BUILDER # W - 1
Dividing Whole Numbers

When dividing a whole number (the **dividend**) by another whole number (the **divisor**) using the process of long division, apply the **D-M-S-B** (**D**ivide-**M**ultiply-**S**ubtract-**B**ring Down) process working from left to right.

Examples

1. $341 \div 8$

Solution:

$$\begin{array}{r} 42 \\ 8 \overline{)341} \\ - 32 \\ \hline 21 \\ - 16 \\ \hline 5 \end{array}$$

The D-M-S-B process was done twice:

A. Divide 34 by 8 to get 4.
 Multiply 4 by 8 to get 32.
 Subtract 32 from 34 to get 2.
 Bring down 1.

B. Divide 21 by 8 to get 2.
 Multiply 2 by 8 to get 16.
 Subtract 16 from 21 to get 5.
 There is nothing to bring down so STOP.

Thus, the **quotient** is 42 and the **remainder** is 5 and the answer is **42 R 5**.

2. $36,072 \div 17$

Solution:

$$\begin{array}{r} 2,004 \\ 17 \overline{)36,072} \\ - 36 \\ \hline 00 \\ - 0 \\ \hline 7 \\ - 0 \\ \hline 72 \\ - 72 \\ \hline 0 \end{array}$$

can be shortened to

$$\begin{array}{r} 2,004 \\ 17 \overline{)36,072} \\ - 36 \\ \hline 0072 \\ - 72 \\ \hline 0 \end{array}$$

See if you can follow the D-M-S-B process in the above. Thus, the division is **exact** and the answer is 2,004.

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Divide. Write your answer as **quotient R remainder** (if any).

1. $519 \div 4$

2. $873 \div 21$

3. $4,165 \div 35$

4. $22,982 \div 57$

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Answers

1. 129 R 3
2. 41 R 12
3. 119
4. 403 R 11

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