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. **D**ivide 34 by 8 to get 4.
   Multiply 4 by 8 to get 32.
   Subtract 32 from 34 to get 2.
   Bring down 1.

   B. **D**ivide 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:

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

   can be shortened to

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

   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