**Basic Arithmetic**
**Skill-Builder # W - 10**
**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.
**M**ultiply 4 by 8 to get 32.
**S**ubtract 32 from 34 to get 2.
**B**ring down 1.

**B.** **D**ivide 21 by 8 to get 2.
**M**ultiply 2 by 8 to get 16.
**S**ubtract 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

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