Long Division - Review and Questions

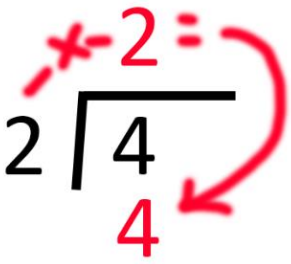
Long division - 1 digit into 1 digit, no remainder

Step One: Count how many times the **divisor** can go into the **dividend**.

$2\overline{)4}$

$\begin{array}{r} 2 \\ 2\overline{)4} \end{array}$

Step Two: Place that number on top of the line, directly on top of the dividend



Step Three: Multiply the divisor by the quotient, and place the answer directly beneath the dividend.

$\begin{array}{r} 2 \\ 2\overline{)4} \\ -4 \\ \hline 0 \end{array}$

Step Four: Subtract the result, from the quotient. Once you get '0' as an answer, you have finished

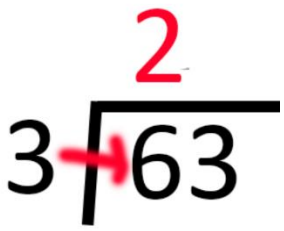
$2\overline{)6}$

$2\overline{)8}$

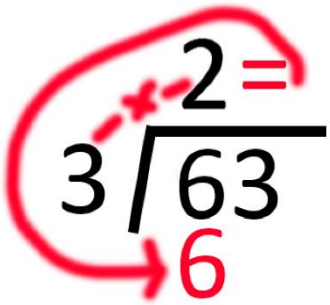
$2\overline{)2}$

$3\overline{)6}$	$3\overline{)9}$
$4\overline{)8}$	$4\overline{)4}$
$3\overline{)3}$	$5\overline{)5}$
$1\overline{)1}$	$2\overline{)2}$
$3\overline{)3}$	$4\overline{)4}$

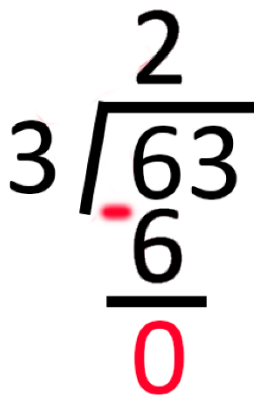
Long division – 1 digit into 2 digit, no remainder



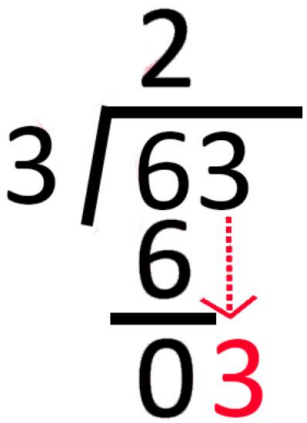
Step One: estimate how many times the divisor can fit into the dividend, and write that number directly on top of the first number in the dividend



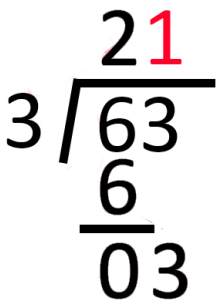
Step Two: multiply the divisor by the number that you put on top of the divisor. Now, write that answer directly beneath the dividend



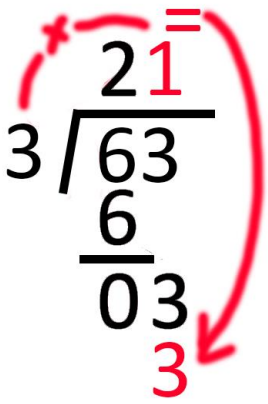
Step Three: subtract the new answer, from the number directly above it. Write the answer underneath.



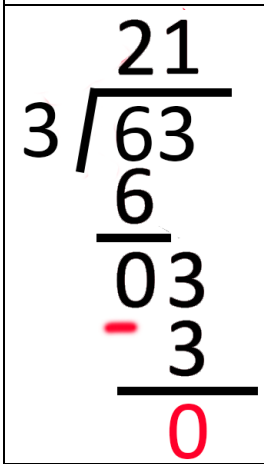
Step Four: bring down the next number in the dividend, down to the answer line



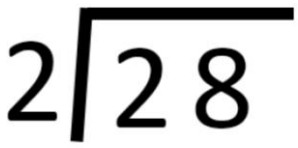
Step Five: estimate how many times the divsor can fit into the dividend. Write that number on the top, in the quotient, directly above the number that was brought down.



Step Six: multiply the number that you just wrote, by the divosor, and write that answer beneath the last number at the bottom, directly beneath the previous number



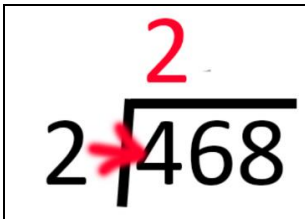
Step Seven: subtract the final number. When you get '0' as an answer, you are finished



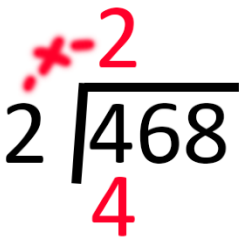
$2\overline{)22}$	$2\overline{)44}$
$3\overline{)33}$	$3\overline{)36}$
$3\overline{)39}$	$3\overline{)99}$

$3\overline{)66}$	$3\overline{)63}$
$4\overline{)44}$	$4\overline{)48}$
$2\overline{)48}$	$5\overline{)55}$

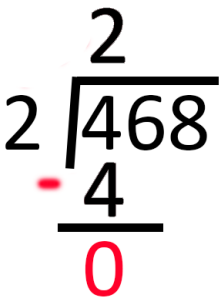
Long division – 1 digit into 3 digit, no remainder



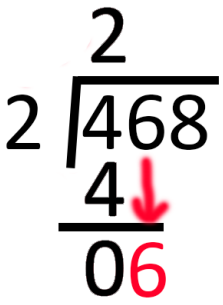
Step One: estimate how many times the divisor can fit into the dividend, and write that number directly on top of the first number in the dividend



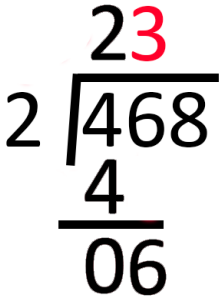
Step Two: multiply the divisor by the number that you put on top of the divisor. Now, write that answer directly beneath the dividend



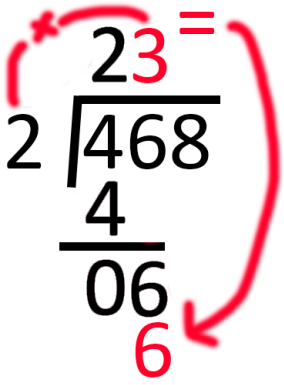
Step Three: subtract the new answer, from the number directly above it. Write the answer underneath.



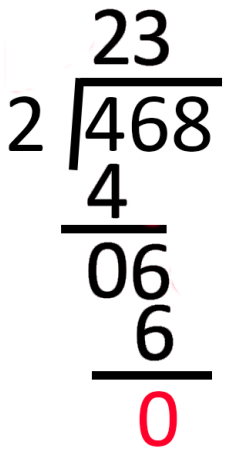
Step Four: bring down the next number in the dividend, down to the answer line



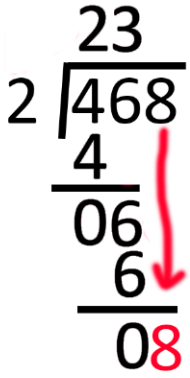
Step Five: estimate how many times the divsor can fit into the dividend. Write that number on the top, in the quotient, directly above the number that was brought down.



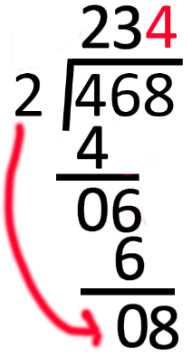
Step Six: multiply the number that you just wrote, by the divosor, and write that answer beneath the last number at the bottom, directly beneath the previous number



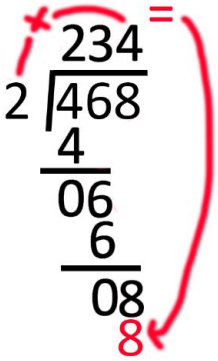
Step Seven: subtract the final number.



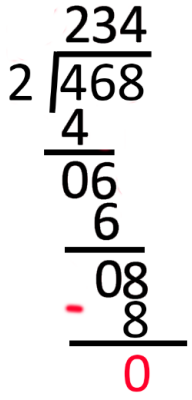
Step Eight: bring down the final number.



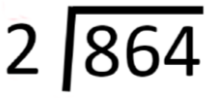
Step Nine: estimate how many times the divisor can fit into the number at the bottom. Write that number directly on top of the number that was brought down.



Step Ten: multiply the divisor by the number that you wrote on the top. Write the answer underneath the bottom number



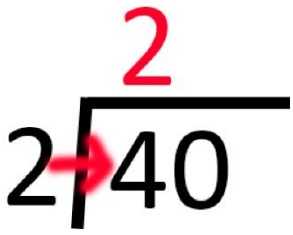
Step Eleven: subtract the final number, from the number above. When you get '0' as an answer, you are finished



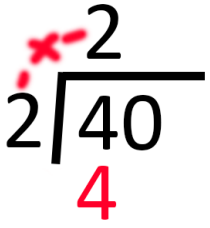
$2\overline{)644}$	$2\overline{)828}$	$2\overline{)462}$
$3\overline{)336}$	$3\overline{)963}$	$3\overline{)639}$

$4\overline{)484}$	$4\overline{)884}$	$4\overline{)888}$
$1\overline{)567}$	$1\overline{)321}$	$1\overline{)987}$

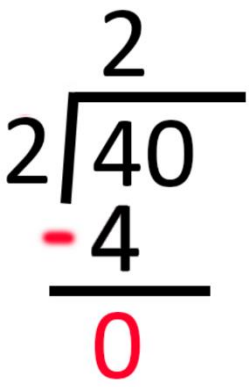
Long division – 1 digit into 2 digit, with a zero



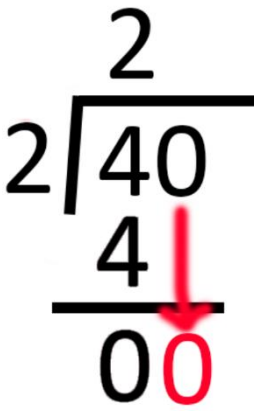
Step One: estimate how many times the divisor can fit into the dividend, and write that number directly on top of the first number in the dividend



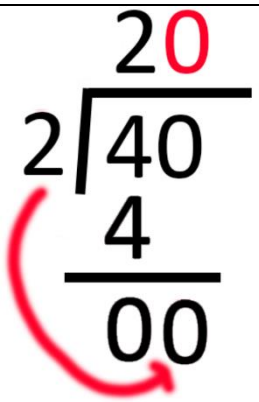
Step Two: multiply the divisor by the number that you put on top of the divisor. Now, write that answer directly beneath the dividend



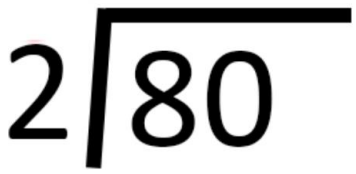
Step Three: subtract the new answer, from the number directly above it. Write the answer underneath.

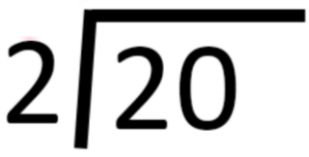


Step Four: bring down the zero



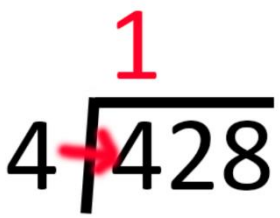
Step Five: how many times can the divisor fit into 0? None. So write '0' on top of the zero in the dividend. Now you are finished



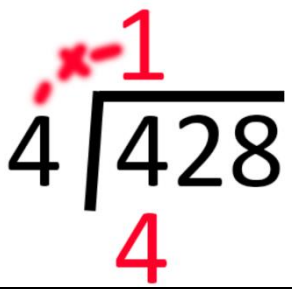


$2\overline{)660}$	$2\overline{)820}$
$2\overline{)420}$	$2\overline{)604}$

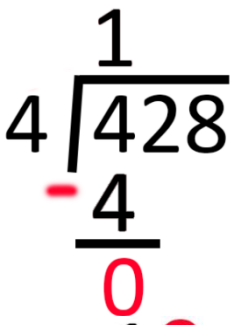
Long division – 1 digit into 3 digit, with a smaller number than divisor



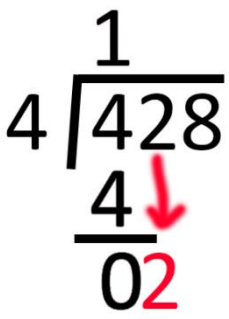
Step One: estimate how many times the divisor can fit into the dividend, and write that number directly on top of the first number in the dividend



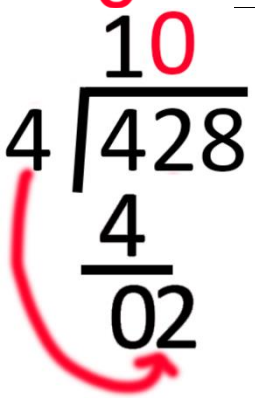
Step Two: multiply the divisor by the number that you put on top of the divisor. Now, write that answer directly beneath the dividend



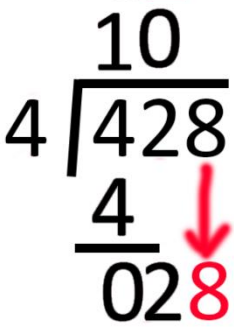
Step Three: subtract the new answer, from the number directly above it. Write the answer underneath.



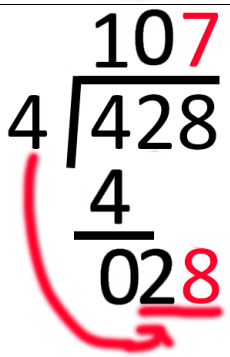
Step Four: bring down the next number in the dividend



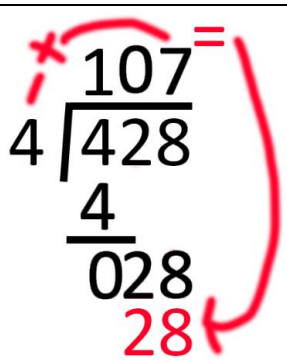
Step Five: see how many times the divisor can fit into the number on the bottom. If it can't fit, then you have to write a '0' at the top, on top of the number that the divisor can't fit into.



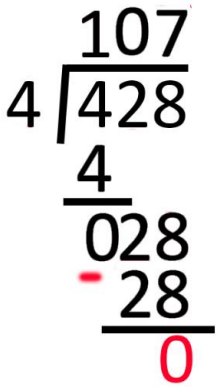
Step Six: bring down the next number in the dividend



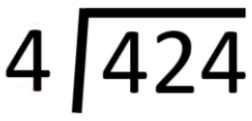
Step Seven: see how many times the divisor can fit into this 2-digit number. Write how many times it can fit, on top of the number that you just brought down



Step Eight: multiply the divisor, by the number that you just wrote on top, in the quotient. Write that answer at the bottom



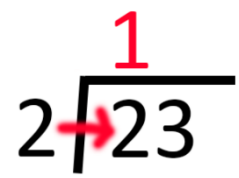
Step Nine: subtract the bottom number, from the number right above it. Once you get zero, you're finished



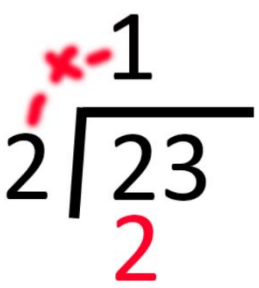
$4\overline{)628}$	$8\overline{)828}$
$8\overline{)848}$	$4\overline{)412}$

$4\overline{)416}$	$4\overline{)824}$
$3\overline{)621}$	$3\overline{)966}$

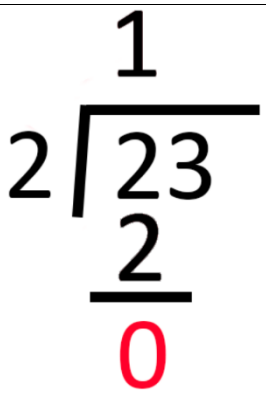
Long division – 1 digit into 2 digit, with a remainder, 1st digit easy



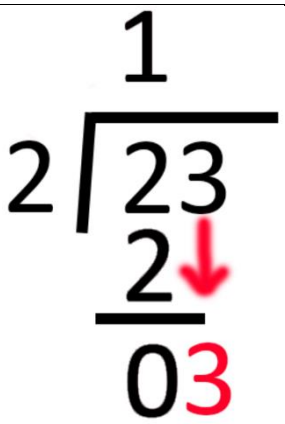
Step One: estimate how many times the divisor can fit into the dividend, and write that number directly on top of the first number in the dividend



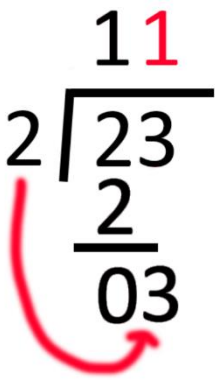
Step Two: multiply the divisor by the number that you put on top of the divisor. Now, write that answer directly beneath the dividend



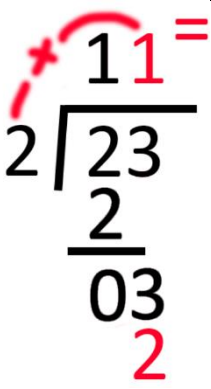
Step Three: subtract the new answer, from the number directly above it. Write the answer underneath.



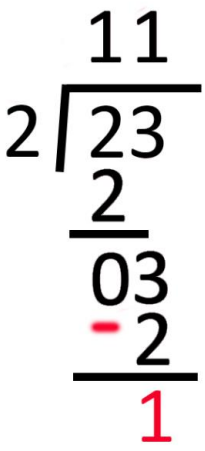
Step Four: bring down the next number in the dividend



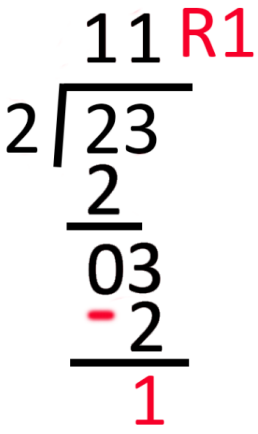
Step Five: see how many times the divisor can fit into the number on the bottom. If it can't fit, then you have to write a '0' at the top on top of the number that the divisor can't fit into.



Step Six: multiply the divisor by the number that you just wrote in the quotient. Write the answer at the bottom



Step Seven: subtract the bottom number from the number above it

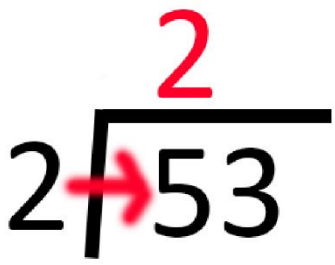


Step Eight: write in the remainder. The remainder is whatever is on the answer line, when you have run out of numbers to bring down in the dividend

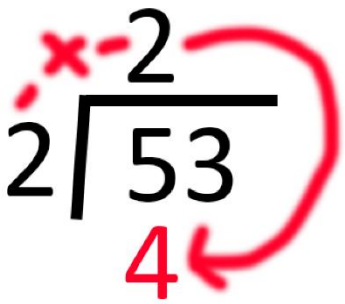
$2\overline{)43}$	$2\overline{)65}$
$2\overline{)63}$	$2\overline{)85}$
$2\overline{)83}$	$2\overline{)45}$

$3\overline{)65}$	$3\overline{)95}$
$3\overline{)35}$	$3\overline{)67}$
$3\overline{)94}$	$3\overline{)95}$

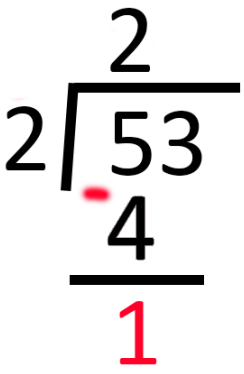
Long division – 1 digit into 2 digit, with a remainder, both digits not easy



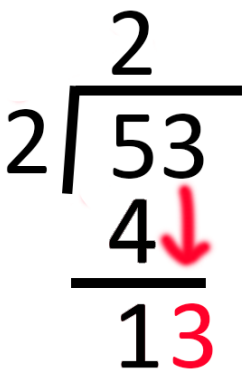
Step One: estimate how many times the divisor can fit into the dividend, and write that number directly on top of the first number in the dividend



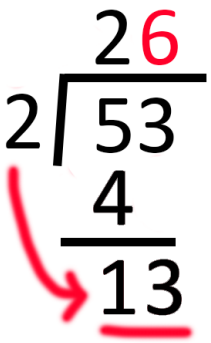
Step Two: multiply the divisor by the number that you put on top of the divisor. Now, write that answer directly beneath the dividend



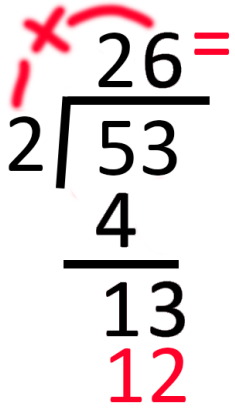
Step Three: subtract the new answer, from the number directly above it. Write the answer underneath.



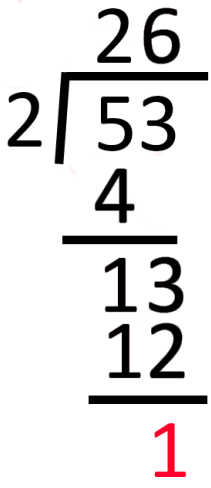
Step Four: bring down the next number in the dividend



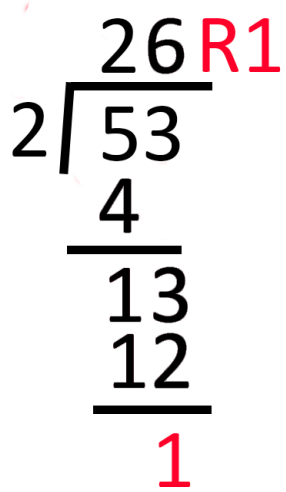
Step Five: see how many times the divisor can fit into the number on the bottom. Write how many times it can fit, on top of the number that you just brought down



Step Six: multiply the divisor by the number that you just wrote in the quotient. Write the answer at the bottom



Step Seven: subtract the bottom number from the number above it



Step Eight: write in the remainder. The remainder is whatever is on the answer line, when you have run out of numbers to bring down in the dividend

$2\overline{)37}$	$2\overline{)73}$
$2\overline{)97}$	$2\overline{)53}$
$2\overline{)71}$	$2\overline{)91}$

$3\overline{)45}$	$3\overline{)54}$
$3\overline{)77}$	$3\overline{)55}$
$3\overline{)44}$	$3\overline{)42}$

$4\overline{)52}$	$4\overline{)77}$
$4\overline{)97}$	$4\overline{)51}$
$4\overline{)79}$	$4\overline{)56}$

Long division – 1 digit into 3 digit, with a remainder, 3 digits not easy

$4\overline{)561}$	$4\overline{)537}$
$4\overline{)935}$	$2\overline{)935}$
$2\overline{)351}$	$2\overline{)937}$

$3\overline{)478}$	$3\overline{)544}$
$3\overline{)788}$	$3\overline{)455}$
$3\overline{)754}$	$3\overline{)845}$