

Grade 5 • Unit 4 Worksheet

Wrapping Up Multiplication and Division with Multi-digit Numbers

Name: _____

Date: _____

Part A • Mental Estimation

Estimate first! Don't compute exactly.

$27 \times 38 \approx =$ _____	$412 \times 19 \approx =$ _____	$856 \div 22 \approx =$ _____	$1,250 \div 48 \approx =$ _____
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Part B • Standard Algorithm for Multiplication

1. Find 263×24 using the STANDARD ALGORITHM.

Show your work:

Answer: _____

Is your answer reasonable? Estimate to check: $263 \times 24 \approx$ _____ $\times$ _____ $=$ _____

2. Find 145×38 in TWO different ways.

Way 1. Standard algorithm:

Way 2. Partial products (decompose by place value):

Did you get the same answer? _____

Which way did you prefer? Why?

3. Sara wrote this work for 264×38 : she got partial products 2,112 and 7,920, and a final answer of 10,032.

Check: $264 \times 8 =$ _____. Does this match 2,112? _____

What does the SECOND partial product 7,920 represent? (Hint: it is not 264×3 .)

Is Sara's final answer right? _____

Part C • Division with 2-Digit Divisors

4. Find $532 \div 14$ using PARTIAL QUOTIENTS.

Show your work:

Quotient: _____ remainder _____

Check by multiplying: _____ $\times$ 14 + _____ = _____

5. Han needs to find $936 \div 24$. He thinks: ' $24 \times 10 = 240$, and $24 \times 40 = 960$, so the answer is between 30 and 40.'

Is Han's reasoning correct? Yes / No

Find $936 \div 24$ exactly:

Answer: _____

Part D • Real-World Problems

6. A bus seats 48 people. A field trip has 712 students. How many buses are needed?

Equation: _____ $\div$ _____ = _____ remainder _____

How many buses? _____

Why did you have to ROUND UP (or did you)?

7. A truck can carry 24 boxes per trip. The company needs to move 175 boxes. They have 4 trucks running for 2 trips each. Can they move all the boxes in two trips?

Show your work:

Answer: Yes / No, they would need _____ more trips total.

Part E • Thinking Deeply

8. When you find 47×23 with the standard algorithm, the SECOND partial product looks like 940, not 94.

What does the 0 at the end of 940 represent?

Why is multiplying by '2' actually multiplying by 20?

9. Pat divides $588 \div 28$ and gets 11 remainder 20. Check: is Pat right?

Compute $11 \times 28 =$ _____

Compute $11 \times 28 + 20 =$ _____

Is Pat correct? Yes / No. If not, find the right answer:

10. Write your own story problem requiring multiplication of a 3-digit number by a 2-digit number.

My problem:

My answer: _____

11. True or false: 'If I multiply two numbers and one of them is 0, the answer is always 0.'
What if the situation is $1000 \div 50$? Is dividing the same as multiplying?
