

Math

2 by 2 Digit Multiplication

5th Grade

State Standard(s): 5.NBT.5 Fluently, efficiently, accurately, and flexibly multiply multi-digit whole numbers using an efficient algorithm.

Student Learning Objective(s): TSWBAT practice multiplying multi-digit numbers and solving real world problems.

Materials:

- Page [117](#)
 - <https://drive.google.com/file/d/15QEIQaWXqciCsrdF1HrCH-fBW3Jn0eiR/view?usp=sharing>
- Page [118](#)
 - https://drive.google.com/file/d/1C472AB0AjF_RWfXK49uwsqG1APVPgp6C/view?usp=sharing
- [Double Digit Multiplication Game](#)
 - <https://drive.google.com/file/d/19IEPiQVMRRYKqijjY8s2VuRmiAPkTUH/view?usp=sharing>
- [Page 83 #9-13](#)
 - <https://drive.google.com/file/d/13KZRfNv1dCy4tVPsLiFgEhcsMyGx-4AM/view?usp=sharing>
- [Answer Key](#)
 - <https://drive.google.com/file/d/1KZbNKl0EfQrtH87ouFsuyzyTff4WYl3Y/view?usp=sharing>

ARK:

Write a 2 digit by 2 digit problem on the board. Have a volunteer solve it using partial products. Have another volunteer solve the same problem using expanded notation. Have a third volunteer solve it using standard algorithm. Remind the students that we can solve the same math problems with different strategies and get the same answer. It is okay to do something in a different way than others.
($17 \times 23 = 391$)

We do:

Page 117 - Point out problems 8 and 11 and ask the students what's different between those and the rest of the problems on this page. Hopefully they noticed that they are multiples of tens. Discuss how our strategy will be different for solving these two problems. We can use our base ten method for these problems. (4×5 and then add the zeros at the end) (4×4 plus the zeros).

8.	400	11.	40
\times	50	\times	40
<hr/>		<hr/>	

Review the standard algorithm from yesterday's lesson by doing problems 4 and 10 together on the board.

4.	2,786	10.	65
\times	3	\times	24
<hr/>		<hr/>	

Two do:

Page 117 - Have students circle problems 1, 3, 5, 7, and one story problem on page 118. They can partner up and solve these problems together. Each partner can choose their own method to use to solve the problems, but they must check their answers together. If the answers match, move on. If the answers do not match, they need to go back and find the mistake. Once finished, come back together and check answers as a class. (15 mins)

After the answers have been checked, the students will return to those same partners and play the [Double Digit Multiplication Game](#). (15 mins)

You do/ISS:

After the game, the students will complete [page 83 #9-13](#) on their own to be graded. If they don't get this part finished, it is homework.

[Answer Key](#)