

# Dimensions Math

## Grade 3 Letter Home

### Chapter 5 Multiplication

#### Home Connection

This chapter introduces the standard multiplication algorithm, in which numbers are written in a vertical format with the digits aligned. Your child will multiply two-digit and three-digit numbers by 2, 3, 4, and 5. They should be fluent with multiplication facts for 2 to 5. This chapter precedes multiplication and division by 6, 7, 8, and 9 so students can focus on the algorithm using facts they should know well.

Students will use place-value discs to enrich their conceptual understanding of the algorithm as they gain procedural fluency. Here is the procedure for using the place-value discs to demonstrate the algorithm:

$$\begin{array}{r} 755 \\ \times 3 \\ \hline \end{array}$$

**Multiply the ones:**

5 ones  $\times$  3 = 15 ones

1  
7 5 5  
 $\times$  3  
5

Regroup 15 ones as 1 ten and 5 ones.  
Write the digit 1 at the top of the tens column and the digit 5 below the line in the ones column.

**Multiply the tens:**

5 tens  $\times$  3 = 15 tens

15 tens + 1 regrouped ten = 16 tens

1 1  
7 5 5  
 $\times$  3  
6 5

Regroup 16 tens as 1 hundred and 6 tens.  
Write the digit 1 at the top of the hundreds column and the digit 6 below the line in the tens column.

**Multiply the hundreds:**

7 hundreds  $\times$  3 = 21 hundreds

21 hundreds + 1 regrouped hundred = 22 hundreds

Regroup 22 hundreds as 2 thousands and 2 hundreds.

1 1  
7 5 5  
 $\times$  3  
2,2 6 5

This process can continue for many more places, which is one of the advantages of the standard algorithm. Since there are no more digits to multiply, write both the 2 thousands and 2 hundreds below the line in the correct place-value columns.

## What can we do at home?

Math fact fluency of 1, 2, 3, 4, and 5 is key for students to be able to focus on the more complicated procedures of the standard algorithm. Continued practice of these multiplication and division facts at home will greatly benefit your child.

Salute is a fun game for multiplication and division and is easy to modify so your child can focus on the facts for 1 through 5. The modifications are listed below in red.

### Salute

#### *Multiplication and Division Fact Practice*

**Materials:** Deck of playing cards with the face cards removed.

**Directions:**

- This game works best with 3 players.
- Place the deck of cards in the middle of the three players.
- Player One draws a card and without looking places it on their forehead. **(Use the 1-5 cards only)**
- Player Two draws a card and without looking places it on their forehead. (If playing with only 2 players put this card on the table face up.) **(Use the 6, 7, 8, and 9 cards only)**
- Player Three silently multiplies the two cards and says the product out loud.
- Then player One and Two try to be the first to determine the card on their forehead.
- After several turns, switch roles so everyone gets a chance to determine the product.

**Check out a video for Salute and other activities on our TCA Website.**

**<https://www.tcatitans.org/Domain/200> They are located in the math resources multiplication and division folder.**