3

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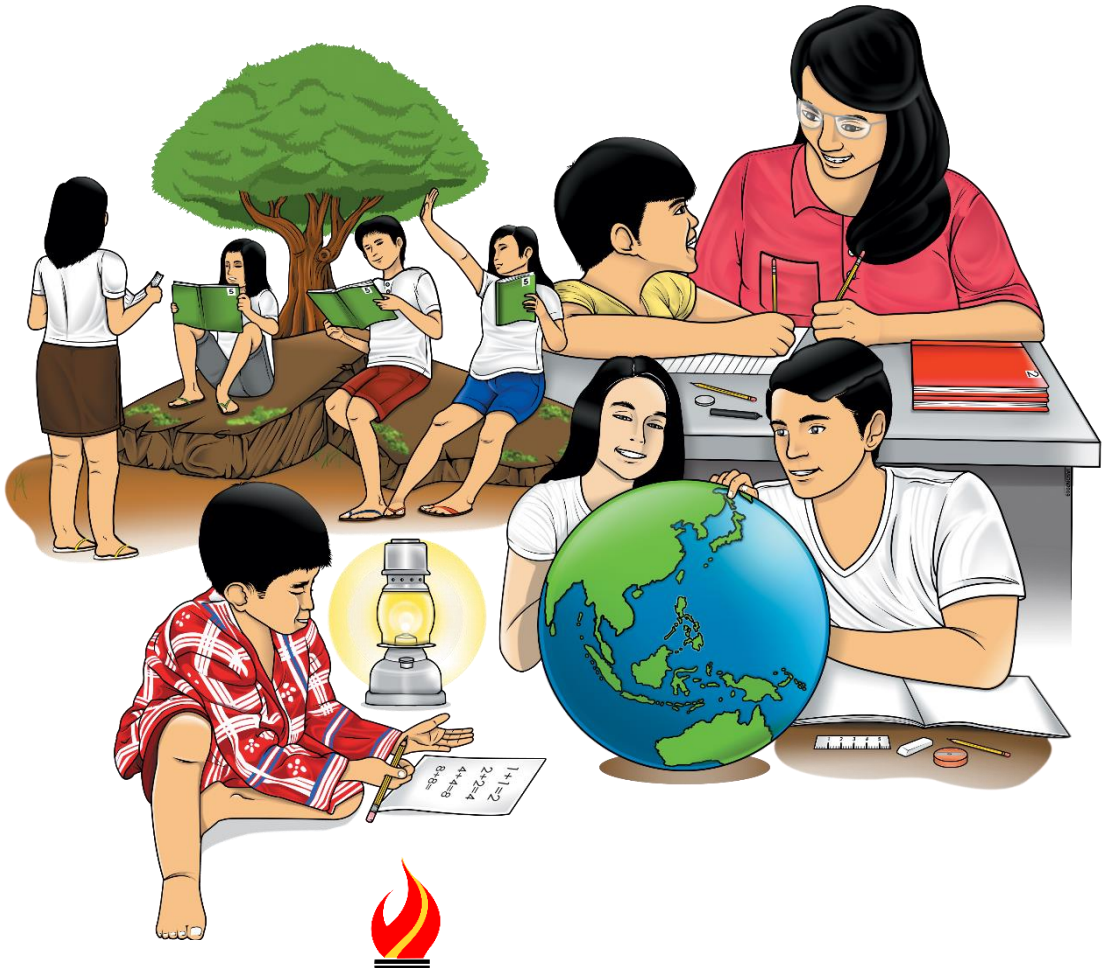
Mathematics

Quarter 2 – Module 4(c):
Multiply 2-to-3 Digit Numbers with Multiples of 10 and 100



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ADM

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Quarter 2 – Module 4c: Multiply 2-to-3 Digit Numbers with Multiples of 10 and 100
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3

Mathematics

Quarter 2 – Module 4(c): Multiply 2-to-3 Digit Numbers with Multiples of 10 and 100

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Introductory Message

This Self-Learning Module (SLM) is prepared so that you, our dear learners, can continue your studies and learn while at home. Activities, questions, directions, exercises, and discussions are carefully stated for you to understand each lesson.

Each SLM is composed of different parts. Each part shall guide you step-by-step as you discover and understand the lesson prepared for you.

Pre-tests are provided to measure your prior knowledge on lessons in each SLM. This will tell you if you need to proceed on completing this module or if you need to ask your facilitator or your teacher's assistance for better understanding of the lesson. At the end of each module, you need to answer the post-test to self-check your learning. Answer keys are provided for each activity and test. We trust that you will be honest in using these.

In addition to the material in the main text, Notes to the Teacher are also provided to our facilitators and parents for strategies and reminders on how they can best help you on your home-based learning.

Please use this module with care. Do not put unnecessary marks on any part of this SLM. Use a separate sheet of paper in answering the exercises and tests. And read the instructions carefully before performing each task.

If you have any questions in using this SLM or any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator.

Thank you.

What I Need to Know

This module was designed and written with you in mind. It is here to help you master on multiplying 2-to 3-digit numbers with multiples of 10 and 100. The scope of this module permits it to be used in many different learning situations. The language used recognizes your diverse vocabulary backgrounds. The lessons are arranged to follow the standard sequence of the course but the order in which you read them can be changed to correspond with the Grade 3 Mathematics learning materials you are using.

After going through this module, you are expected to:

1. Multiply 2-to-3 digits number with multiples of 10 and 100. (**M3NS-IId43.4**)

Enjoy your journey. Good luck!

What I Know

Direction: Choose the correct answer from the given choices. Write your answer on a separate sheet of paper.

1. What is the product when you multiply 34 by 10?
   a. 380
   b. 340
   c. 335
   d. 375

2. The product of 172 x 30 is?
   a. 6233
   b. 4352
   c. 5160
   d. 1572

3. What is the multiplier when the multiplicand is 25 and the product is 500?
   a. 10
   b. 20
   c. 30
   d. 40

Find the product.

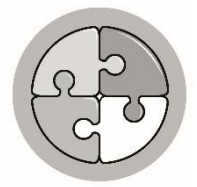
4.)
$$\begin{array}{r} 953 \\ \times\ 300 \\ \hline \end{array}$$

5.)
$$\begin{array}{r} 321 \\ \times\ \ 40 \\ \hline \end{array}$$

Lesson 1 Multiply 2-to-3 Digit Numbers with Multiples of 10 and 100

The process of multiplying 2- to 3-digit numbers with multiples of 10 and 100 can easily be learned if you already mastered your knowledge in multiplying 2- to 3-digit numbers by 1-digit number.

Before we proceed to the main discussion of the lesson in this module, let us revisit your previous knowledge needed in our lesson as you go through the course of this learning material.



What's In

Direction: Find the product.

1. 61 x 2 =
2. 73 x 6 =
3. 67 x 7 =
4. 456 x 3 =
5. 123 x 4 =

What's New

Activity 1

Mr. Torres, a generous person wants to help those families whose houses were caught in fire. Help him prepare the relief goods for these families.

Item	Number of Sets	Number of (pack, can or bottle) in Each Set	Total Number of Items
Biscuits	146	30	
Canned Goods	30	28	
Noodles	484	500	
Bottled water	52	50	

Guide questions:

1. How many canned goods Mr. Torres prepared?
2. How about the biscuits?
3. How many food items did he prepared in all?

What is It

We can solve the problem in Activity 1 in different ways. Since the problem involves multiplication, then we can used repeated addition. However, we learn from previous lessons that this method takes a long process knowing that the given figures have large values. The best way is to use the *short method of multiplication.*

Observe that each pair of numbers to multiply has one number in the form of multiples of 10 and 100.

In ***multiplying numbers with multiples of 10 and 100***, follow these simple steps:

Step 1. Take the number in multiples of 10 as the multiplier

Step 2. Multiply only the nonzero digit of the multiplier to the multiplicand

Step 3. Add the number of zeros of the multiplier to the partial product in step 2

Example1:

Let us solve the problem in Activity 1.

To get the total number of biscuits, multiply 146 and 30.

Solution:

Step 1: take multiples of 10 as the multiplier → 30

Step 2: multiply only the nonzero digit of the multiplier to the multiplicand

```
  1 1
  1 4 6
x   3 0
-------
4 3 8
```

Step 3. add the zeros of the multiplier to the partial product

```
  1 4 6
x   3 0
-------
4 3 8 0
```

Answer: **146 x 30 = 4,380 biscuits**

Example 2:

Multiply 30 and 28.

Solution:

Step 1: take multiples of 10 as the multiplier → 30

Step 2: multiply only the nonzero digit of the multiplier to the multiplicand

$$\begin{array}{r} {\scriptstyle 2} \\ 28 \\ \times\ 30 \\ \hline 84 \end{array}$$

Step 3. add the zeros of the multiplier to the partial product

$$\begin{array}{r} 28 \\ \times\ 30 \\ \hline 840 \end{array}$$

Answer: **30 x 28 = 840 canned goods**

Example 3:

Multiply 484 and 500.

Solution:

Step 1: take multiples of 10 as the multiplier → 500

Step 2: multiply only the nonzero digit of the multiplier to the multiplicand

$$\begin{array}{r} {\scriptstyle 4\ 2} \\ 484 \\ \times\ 500 \\ \hline 2420 \end{array}$$

Step 3. add the zeros of the multiplier to the partial product

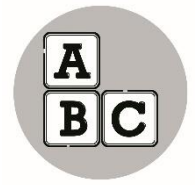
$$\begin{array}{r} 484 \\ \times\ 500 \\ \hline 242000 \end{array}$$

Answer: **484 x 500 = 242,000 noodles**

Can you now find the total number of bottled waters in our problem?

Find the product of 52 and 50 using the steps introduced above.

Step 1: Step 2: Step 3:



What's More

Activity 2

Direction: Multiply.

1.) 33 x 80 =

2.) 148 x 400 =

3.) 90 x 125 =

4.) 700 x 65 =

5.) 200 x 543 =

What I Have Learned

In the multiplication of 2- to 3-digit numbers with the multiples of 10 and 100:

First: multiply the nonzero digit of the tens or hundreds to the other whole number

Second: write the zeros of the multiplier to the right of the partial product

What I Can Do

Activity 4

Joebert and Jell Bhebs volunteered to help those who were affected by the typhoon Yolanda. They were told to sort and organize the shirts by color. Help them as they are to help others.

Shirts	Set	Pieces per set	Total number of clothes per color
Red	373	40	
Blue	431	200	
Green	324	80	
Black	452	400	

Assessment

Direction: Read the problem carefully. Find the product.

1. What is the product of 35 multiplied by 40?
   a. 1 400 b. 1 500 c. 2 300 d. 2 543

2. If you multiply 367 by 80, what is the product?
   a. 29 360 b. 28 745 c. 27 767 d. 27 452

3. What is the product, if you multiply 333 to 40?
   a. 10 925 b. 11 254 c. 14 567 d. 13 320

4. 421
   X 300

5. 321
   x 400

Additional Activities

1. Finding shells on the seashore is the favorite hobby of Recil. She was able to collect 30 kinds of shell with 30 pieces each kind. How many shells did she collected all in all?

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2. Jiezel`s mom bought crayons with different designs for her. Is she was given 12 colors with 40 pieces each, how many crayons does she has all in all?

---

3. Mrs. Lingayngay loves flowers. She has 200 plots in her garden. For each plot she planted 24 flower plants. How many flowers she planted in all?

---

4. Carlos wanted to surprise his classmates on his upcoming birthday. His parents prepared 27 party bags for his classmates with 100 various chocolate candies in it. How many chocolate candies are there in all?

5.Cader has to deliver 14 baskets of eggs. Each basket has 30 eggs in it. How many eggs will he deliver in all?

Answer Key

What I Know

1.) B
2.) C
3.) B
4.) 35 300
5.) 12 8400

What's In

1.) 1 281
2.) 4 672
3.) 1 809
4.) 2 520
5.) 968

What's In

biscuits-140

canned goods-700

noodles-4800

bottled water-2600

What's More

A.

1.) 110
2.) 240
3.) 510
4.) 210
5.) 380

B.

1.) 2 640
2.) 420
3.) 480
4.) 1 500
5.) 22 600

What I Can Do

Red = 14,920
Blue = 86,200
Green = 25,920
Black = 180,800

Assessment

1. A
2. A
3. D
4. 126 300
5. 128 400

Additional Activity

1.) 900
2.) 480
3.) 4 800
4.) 2 700
5.) 420

References

Chingcuangco, O., Contemplacion, H., Flores,E., et. al. (2015) Mathematics 3 Teacher`s Guide. Rex Bookstore Inc. pp.153-160.

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