

**M
A
T
H
E
M
A
T
I
C
S

5**

Modified In-School Off-School Approach Modules (MISOSA)
Distance Education for Elementary Schools
SELF-INSTRUCTIONAL MATERIALS



**DIVISION OF
DECIMAL**



Department of Education
BUREAU OF ELEMENTARY EDUCATION
2nd Floor Bonifacio Building
DepEd Complex, Meralco Avenue
Pasig City

Revised 2010

by the Learning Resource Management and Development System (LRMDS),
DepEd - Division of Negros Occidental
under the Strengthening the Implementation of Basic Education
in Selected Provinces in the Visayas (STRIVE).

Section 9 of Presidential Decree No. 49 provides:

“No copyright shall subsist in any work of the Government of the Republic of the Philippines. However, prior approval of the government agency or office wherein the work is created shall be necessary for exploitation of such work for profit.”

This material was originally produced by the Bureau of Elementary Education of the Department of Education, Republic of the Philippines.

This edition has been revised with permission for online distribution through the Learning Resource Management Development System (LRMDS) Portal (<http://lrmds.deped.gov.ph/>) under Project STRIVE for BESRA, a project supported by AusAID.



DIVISION OF DECIMALS

Objective: Divide decimals by decimals in the hundredths place



1) $3 \overline{)13.5}$

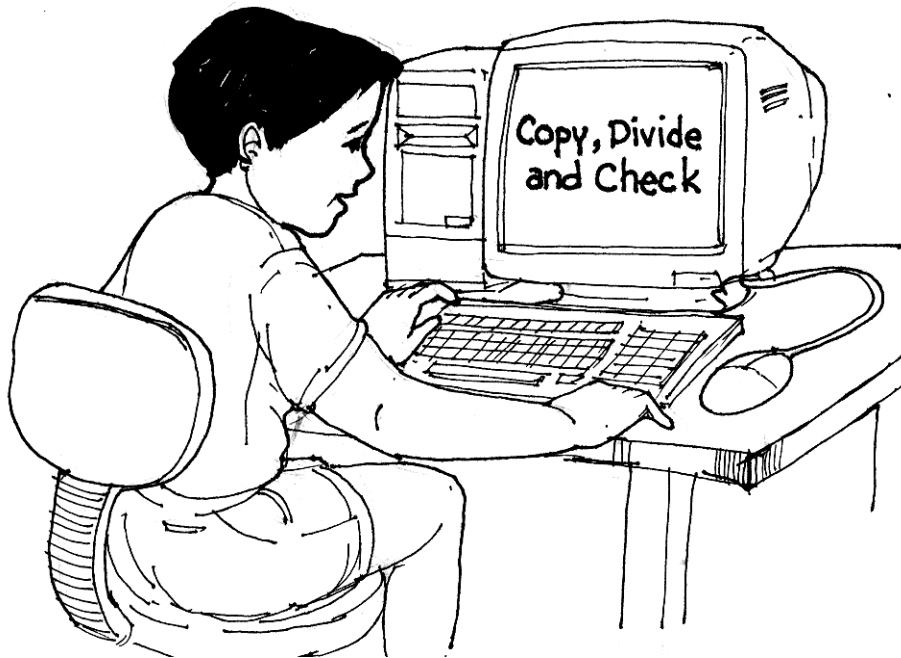
3) $12 \overline{)6.24}$

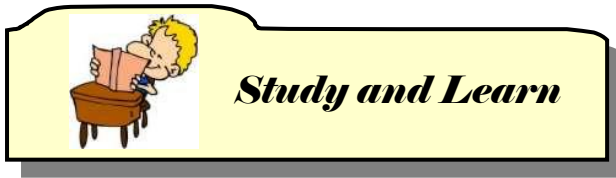
5) $17 \overline{)4.42}$

2) $8 \overline{)60.8}$

4) $6 \overline{)11.22}$

6) $14 \overline{)1.764}$





The Bakers' Bakery is famous for its chocolate muffins which its bakers bake each morning. They use 13.52 kilograms of flour everyday. How many days will 283.92 kilograms of flour last?

Let's analyze the problem:

- What is asked in the problem? *number of days 283.92 kg of flour will last*
- What are the given facts? *13.52 kg, 283.92 kg*
- What operation is to be used? *division*
- What mathematical sentence is appropriate? $283.92 \div 13.52 = n$
- How do we divide a decimal by another decimal?

Steps in dividing decimals by decimals:

- 1. Multiply the divisor by a power of ten that makes it a whole number.**

$$\begin{array}{r} 13.52 \\ \times 100 \\ \hline 1352.00 \end{array} \quad \rightarrow \quad 1352$$

- 2. Multiply the dividend by the same power of ten.**

$$\begin{array}{r} 283.92 \\ \times 100 \\ \hline 28392.00 \end{array} \quad \rightarrow \quad 28392$$

- 3. Divide.**

$$\begin{array}{r} 21 \\ 1352 \overline{) 28392} \\ \underline{2708} \\ 1352 \\ \underline{1352} \\ x \end{array}$$

- 4. Check by multiplication.**





Another procedure in dividing decimals by decimals.

1. Move the decimal point in the divisor to the right to make it a whole number.

$$13.52 \rightarrow 1352$$

2. Move the decimal point in the dividend to the right according to the number of places the decimal point in the divisor has been moved.

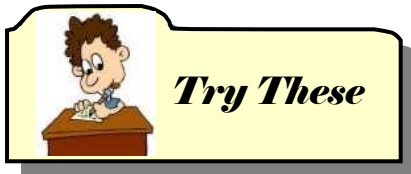
$$283.92 \rightarrow 28392$$

3. Divide the decimals as you would divide whole numbers.

$$\begin{array}{r} 21 \\ 1352 \overline{) 28392} \\ \underline{2704} \\ -1352 \\ \underline{1352} \\ - -x \end{array}$$

A caret (^) shows where the decimal point has been moved.

4. Check by multiplication.

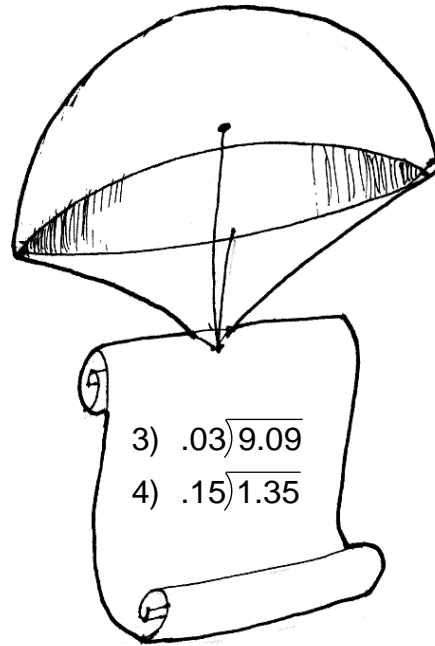
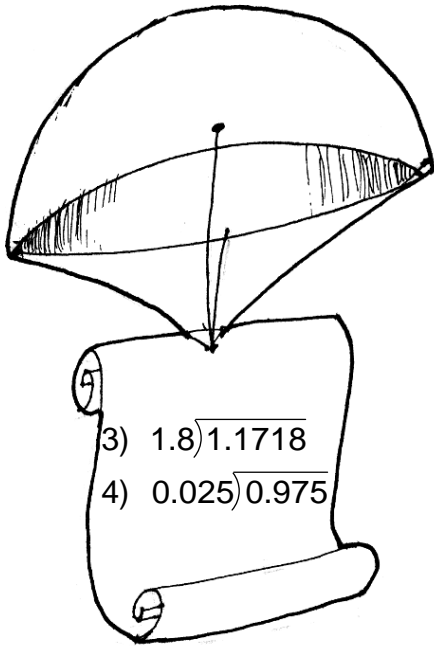


Place a caret in the divisor and dividend to show where the decimal point is moved.

$$\begin{array}{l} 1) 4.71 \overline{) 15.072} \\ 2) 0.6 \overline{) 215.40} \end{array}$$

Copy, divide and check.

$$\begin{array}{l} 1) 0.06 \overline{) 41.28} \\ 2) 0.02 \overline{) 0.72} \end{array}$$



In dividing decimals by decimals:

- Multiply the divisor by the power of ten that makes it a whole number. Or, simply move the decimal point to the right to make it a whole number.
- Multiply the dividend by the same power of ten or simply move the decimal point to the right depending on the number of decimal places the decimal point in the divisor has been moved.
- Divide the decimals as you would divide whole numbers.



On Your Own

Copy, divide.

1. $0.04 \overline{)27.24}$

2. $0.03 \overline{)12.84}$

3. $0.27 \overline{)0.54}$

4. $0.08 \overline{)50.56}$

5. $0.19 \overline{)12.35}$

Check your answer with the answer key.

If you get...

4-5 Excellent! You may now proceed to the next lesson.

3 You need to review the processes you missed.

0-2 You need to repeat the whole process. Ask your teacher or elder to help you.



Key to Correction
DIVISION OF DECIMALS

REVIEW

1. 4.5
2. 7.6
3. 0.52
4. 1.87
5. 0.26
6. 0.126

ON YOUR OWN

- 1) 681
- 2) 428
- 3) 2
- 4) 632
- 5) 65

TRY THESE

A.

- 1) $4.71 \overline{)15.072}$
- 2) $0.6 \overline{)215.4}$
- 3) $1.8 \overline{)1.1718}$
- 4) $0.025 \overline{)0.975}$

B.

- 1) 688
- 2) 36
- 3) 303
- 4) 9