

## Student Book

## 3rd Grade | Unit 9

# MATH 309 MULTIPLICATION, METRICS, AND PERIMETER 

Introduction |3

1. Numbers and Fractions ....................................... 4

Addition and Subtraction |4
Fractions |8
Self Test 1 |12
2. Add Fractions and Mixed Numbers ............. 14

Metric Temperature |16
Adding Mixed Numbers |19
Self Test 2 |22
3. Subtract Fractions and Mixed Numbers .... 24

Perimeter and Area |27
Subtracting Mixed Numbers |28
Self Test 3 |31
4. Rounding, Metrics, and Probability ............ 33

Rounding |34
Probability |35
Metric System |37
Self Test 4 |41
5. Application and Review 43
Self Test 5 |50

LIFEPAC Test |Pullout

NOTE to teachers, parents, and students:
As part of a continuing effort to improve the LIFEPAC curriculum a new layout of this unit has been produced. The content of this unit has not changed but the page numbers referenced in the Teacher Notes of the Teacher's Guide may no longer match.

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# MULTIPLICATION, METRICS, AND PERIMETER 

This unit begins with a review of basic addition and subtraction, geometry terms and fractions. That foundation will be used to expand your skills in adding and subtracting mixed numbers. There will be additional practice in completing picture, bar, circle, and line graphs. You will learn the metric measure for temperature, weight, and volume. In this LIFEPAC ${ }^{\circledR}$, you will also practice the skills of multiplication, place value, time, operations, and likelihood.

## Objectives

Read these objectives. The objectives tell you what you will be able to do when you have successfully completed this LIFEPAC.

1. I can add and subtract whole numbers to thousands.
2. I can add and subtract fractions and whole numbers.
3. I know standard measurements for time, length, weight, volume, directions, and temperature.
4. I can learn metric units for temperature, weight, and volume.
5. I can read bar, line, picture, and circle graphs.
6. I know multiplication facts for $2,3,4,5$, and 10.
7. I know place value to thousands.
8. I know operation symbols for,,$+-=, \neq,>,<, \times$.

# 1. NUMBERS AND FRACTIONS 

In this section, you will study the parts of a fraction. You will also practice your addition and subtractions skills. You will draw lines of symmetry through objects. You will also review mixed numbers, digits, and standard measurements of time.

## Addition and Subtraction



Complete the following activities.
1.1 Write answers to the facts.

| 4 | 9 | 8 | 7 | 4 |
| ---: | ---: | ---: | ---: | ---: |
| +5 | +7 | +3 | +6 | +6 |


| 3 | 3 | 6 | 5 | 9 |
| ---: | ---: | ---: | ---: | ---: |
| +4 | +7 | +9 | +2 | +7 |


| 9 | 8 | 6 | 9 | 4 |
| ---: | ---: | ---: | ---: | ---: |
| +4 | +8 | +5 | +9 | +7 |


| 4 | 8 | 9 | 7 | 4 |
| ---: | ---: | ---: | ---: | ---: |
| +8 | +7 | +5 | +8 | +9 |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| 7 | 3 | 9 |  |  |
| +5 | +9 | +6 |  |  |

Lines of symmetry divide a figure into two equal parts. The two sides will match.
1.2 Draw a line of symmetry for each figure.

1.3 Write the answer to the facts.
$\begin{array}{r}8 \\ -\quad 3 \\ \hline\end{array}$
15
11
$\begin{array}{r}10 \\ -\quad 6 \\ \hline\end{array}$
$\begin{array}{r}9 \\ -7 \\ \hline\end{array}$
16
$-3$
$-6$
$-5$
$-7$

14
10
12
11
11
13

- 8
$-4$
$-9$
- 8
- 7
$-4$

17
12
14
11
14
15
$-9$

- 8
$-9$
$-2$
$-7$
- 8

12
11
15
9
13
18
$-6$
$-3$
$-7$
$-5$

- 6
- 9

| 12 | 8 | 16 |
| ---: | ---: | ---: |
| -3 | -8 | -9 |

1.4 Match the definition to the part of each drawing that is in blue.
end points
curved line
length

line segment

straight line
angle
width
perimeter

## MULTIPLICATION, METRICS, AND PERIMETER | Unit 9

## Fractions

1.5 Parts of fractions have names. Name each part of the fraction.

1.6 Write the fractions in words.
$\qquad$
$\qquad$
$\frac{2}{3} \longrightarrow \quad \frac{4}{9}$
$\frac{1}{12}$
$\frac{1}{2}$ $\qquad$
1.7 Write the fractions for the words.
five-eighths $\qquad$
four-tenths $\qquad$
one-third $\qquad$
six-sevenths $\qquad$
three-fifths $\qquad$
seven-twelfths $\qquad$
1.8 Write the mixed numbers in words.
$1 \frac{2}{3}$
$5 \frac{6}{7}$
$8 \frac{1}{6}$ $\qquad$ $2 \frac{3}{4}$
$\qquad$
1.9 Write the mixed numbers for the words.
two and one-half $\qquad$
seven and four-fifths $\qquad$ nine and two-thirds $\qquad$ three and six-eighths $\qquad$
1.10 Write the standard measurements for time.
$\qquad$ seconds $=1$ minute $\qquad$ minutes $=1$ hour
$\qquad$ hours = 1 day $\qquad$ days $=1$ month
$\qquad$ months = 1 year $\qquad$ days $=1$ year
1.11 Problems in addition and subtraction have names. Name each part of the problems.

| 754 |
| ---: |
| +461 |
| 1,215 |
| - | | 987 |
| ---: |
| $-\quad 235$ |
| 743 |

1.12 Write fact families.

5, 9, 14
$6,7,13$
1.13 Write the ten digits.
$\qquad$ , $\qquad$ , $\qquad$ , $\qquad$ , $\qquad$ ,
$\qquad$ , $\qquad$ , $\qquad$ , $\qquad$ , $\qquad$
1.14 Write five 1-digit numbers.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
Numbers made up of more than one digit are multi-digit numbers.
1.15 Write five multi-digit numbers.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
1.16 Write the answer.

What place is the 0 in the number 507 ? $\qquad$
Write the number 507 without the zero. $\qquad$
Circle the answer.
$57(>,=,<) 507$
Why do we write O in a number?

## MULTIPLICATION, METRICS, AND PERIMETER | Unit 9

In a fraction, ...
the denominator tells how many parts the object or set is divided into. the numerator tells how many parts we are talking about.

When the numerator and the denominator of a fraction are the same, the fraction is equal to the whole number 1 .

## $\square$ Complete these activities.

1.17 Divide the object into as many equal parts as the denominator says. Count the number of parts the numerator says. Shade the part of the object that shows the fraction.

$\frac{2}{4}$

$\frac{1}{3}$

$\frac{4}{5}$
1.18 Divide the set into as many equal parts as the denominator says.

Count the number of parts the numerator says.
Circle the part of the set that shows the fraction.




KKに
$\frac{4}{5}$
1.19 When the numerator and the denominator of a fraction are the same, the fraction is equal to the whole number 1 . Shade or circle the part that shows the fraction.

$\frac{4}{4}$


$\frac{4}{4}$
 $\square \square$

$\frac{6}{6}$

For this Self Test, study what you have read and done.
The Self Test will check what you remember.

## MULTIPLICATION, METRICS, AND PERIMETER | Unit 9

## SELF TEST 1

Complete these activities (each answer counts as 1 point, except where otherwise noted).
1.01 Write the answers to the facts. (5 points)
$\begin{array}{r}9 \\ +\quad 5 \\ \hline\end{array}$
$\begin{array}{r}4 \\ +\quad 6 \\ \hline\end{array}$
$\begin{array}{r}7 \\ +8 \\ \hline\end{array}$
$\begin{array}{r}9 \\ +\quad 7 \\ \hline\end{array}$
$\begin{array}{r}6 \\ +\quad 5 \\ \hline\end{array}$
$\begin{array}{r}14 \\ -\quad 8 \\ \hline\end{array}$

$$
13
$$

$$
-8
$$

$$
\begin{array}{r}
11 \\
-\quad 9 \\
\hline
\end{array}
$$

$\begin{array}{r}8 \\ -\quad 3 \\ \hline\end{array}$

$$
16
$$

$$
-7
$$

1.02 Draw a line of symmetry.

1.03 Match.
length
line segment
perimeter
end points
angle

1.04 Write in words.
$\frac{4}{5}$ $\qquad$ $3 \frac{1}{8}$
1.05 Write in numbers.
six-ninths $\qquad$ seven and two-thirds $\qquad$
1.06 Shade the fraction.

1.07 Circle the fraction.

$\frac{1}{4}$
1.08 What is each of these fractions equal to?

$$
\frac{4}{4} \quad \frac{5}{5} \quad \frac{6}{6} \quad \frac{2}{2}
$$

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