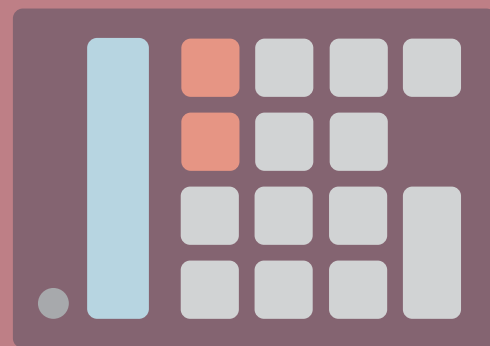




MATH

Student Book



▶ **3rd Grade | Unit 8**

MATH 308

MEASUREMENTS AND MULTIPLICATION

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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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MEASUREMENTS AND MULTIPLICATION

This unit begins with a review of basic addition and subtraction, the conversion of units and plane and solid shapes. That foundation is used to expand subtraction skills that involve borrowing across zeros, the solving of money problems, and the addition of mixed numbers. The steps for completing a picture graph will be added to the skills that have already been learned for bar, line and circle graphs. Some other things that will be covered are direction concepts and length and width. In this LIFE PAC[®], you will also practice the skill of multiplying by 4.

Objectives

Read these objectives. The objectives tell you what you will be able to do when you have finished this LIFE PAC.

1. I can express measurements in more than one unit.
2. I can find the missing addend and check the answer.
3. I can learn about decimal numbers.
4. I can subtract with zeros in the minuend.
5. I can learn to give change in money problems.
6. I can learn more about adding mixed numbers.
7. I can learn directions—north, south, east, west.
8. I can learn about picture graphs.
9. I can learn multiplication facts for 3 and 10.
10. I can learn the multiples of 4.
11. I can learn about length and width.

1. NUMBERS AND SHAPES

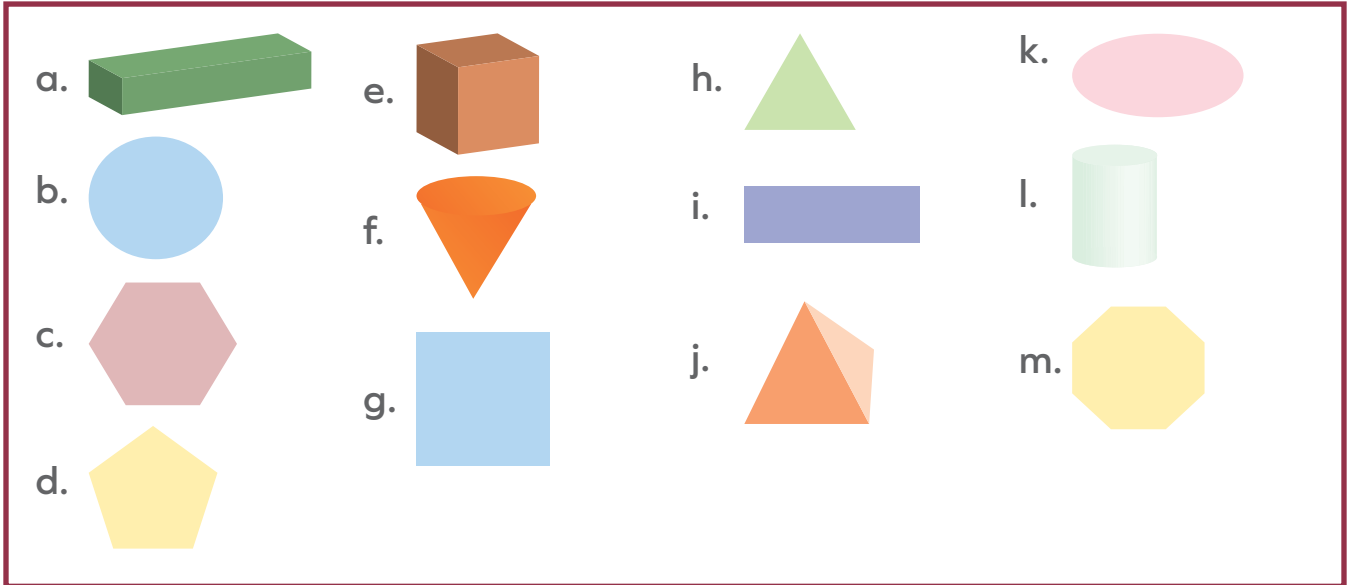
In this first section, you will review some things you learned in earlier lessons. You will review shapes and change different types of money into equal amounts. You will also change different types of measurements into equal measures. You will practice your addition and subtraction skills, as well as study a calendar.

Shapes



Complete the following activities.

1.1 Match the shapes with the names.



- _____ pentagon
- _____ cone
- _____ triangle
- _____ oval
- _____ cylinder
- _____ square
- _____ rectangle
- _____ pyramid
- _____ cube
- _____ circle
- _____ hexagon
- _____ rectangular solid
- _____ octagon

1.2 Write the best answer on the line. You should remember these words.

end points	squares	faces
angles	closed lines	rectangles

Plane shapes are drawn using _____ .
 The sides of solid shapes are named _____ .
 The four sides of _____ are equal.
 The opposite sides of _____ are equal.
 Line segments begin and end with _____ .
 _____ are formed when two lines meet at an end point.

Changing Units

We can express measurements in more than one unit.

- We can change dimes to pennies.
- We can change feet to inches.
- We can change pounds to ounces.
- We can change gallons to quarts.

Jenny has 2 dimes. She wants to change them to pennies. Jenny needs to know how many pennies are equal to 2 dimes. She needs to write a problem.



She knows that ...	1 dime = 10 pennies
But she has 2 dimes.	<u>1 dime = 10 pennies</u>
She adds.	2 dimes = 20 pennies



Do these problems.

1.3 Write the answer on the line. Find the measurement that is equal.

$$4 \text{ feet} = \underline{\quad? \quad} \text{ inches}$$

$$3 \text{ pounds} = \underline{\quad? \quad} \text{ ounces}$$

$$1 \text{ foot} = \underline{\quad\quad\quad} \text{ inches}$$

$$1 \text{ pound} = \underline{\quad\quad\quad} \text{ ounces}$$

$$1 \text{ foot} = \underline{\quad\quad\quad} \text{ inches}$$

$$1 \text{ pound} = \underline{\quad\quad\quad} \text{ ounces}$$

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$$\underline{1 \text{ pound} = \quad\quad\quad \text{ ounces}}$$

$$\underline{1 \text{ foot} = \quad\quad\quad \text{ inches}}$$

$$3 \text{ pounds} = \underline{\quad\quad\quad} \text{ ounces}$$

$$4 \text{ feet} = \underline{\quad\quad\quad} \text{ inches}$$

1.4 Write the problem. Find the measurement that is equal.

$$2 \text{ years} = \underline{\quad? \quad} \text{ days}$$

$$2 \text{ tons} = \underline{\quad? \quad} \text{ pounds}$$

$$4 \text{ square yards} = \underline{\quad? \quad} \text{ square feet}$$

$$5 \text{ gallons} = \underline{\quad? \quad} \text{ quarts}$$

1.5 Add. Check your answer. Add down. Add up.

3	5	18	64	49
8	4	32	50	36
<u>+ 7</u>	<u>+ 9</u>	<u>+ 51</u>	<u>+ 48</u>	<u>+ 22</u>

263	385	476	501	847
<u>+ 429</u>	<u>+ 961</u>	<u>+ 873</u>	397	362
			<u>+ 265</u>	<u>+ 529</u>

1.6 Add. Check your answer. Subtract an addend from the sum.

376		5,963	
<u>+ 584</u>	- _____	<u>+ 2,147</u>	- _____

6,040		4,421	
<u>+ 3,785</u>	- _____	<u>+ 4,608</u>	- _____

2,739		3,125	
<u>+ 5,640</u>	- _____	<u>+ 4,036</u>	- _____

Missing Numbers

If there is a number missing in a problem, it is a missing number problem. We can find the missing numbers in addition problems by subtracting.

Problem	Add	Subtract	Check	
36	36	195	36	Add the addends.
47	47	$- \underline{168}$	47	Subtract from the sum.
85	$+ \underline{85}$	27	85	Substitute and check.
$+ \underline{??}$	168		$+ \underline{27}$	
195			195	



Complete the following activities.

1.7 Find the missing numbers.

Problem	Add	Subtract	Check
8			
?			
7			
$+ \underline{5}$			
29			
6			
8			
?			
$+ \underline{4}$			
26			

Problem Add Subtract Check

$$\begin{array}{r} \text{??} \\ 56 \\ 73 \\ + 19 \\ \hline 173 \end{array}$$

Problem Add Subtract Check

$$\begin{array}{r} 88 \\ 47 \\ 30 \\ + \text{??} \\ \hline 212 \end{array}$$

Problem Add Subtract Check

$$\begin{array}{r} 363 \\ 475 \\ + \text{???} \\ \hline 1,351 \end{array}$$

Problem Add Subtract Check

$$\begin{array}{r} 842 \\ \text{???} \\ + 356 \\ \hline 1,473 \end{array}$$

1.8 Write the answers. Use the calendar.

How many months in a year?

Express the month of June as an ordinal number word. June is the _____ month of the year.

What is the date of the fourth Tuesday of the month? _____

It is the second day of the month. School will be over in eight days.

What is the day and date that school will end? _____

You planned to go to camp the fifteenth of the month but the equipment was not ready. You will need to wait a week. What day and date will you leave for camp? _____

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

1.9 Write the number before and after.

_____ 6,375 _____

_____ 8,639 _____

_____ 9,000 _____

_____ 2,802 _____

_____ 5,099 _____

_____ 3,001 _____

1.10 Think the answer. Write the answer.

$$8 + 5 - 4 + 6 - 7 = \underline{\hspace{2cm}}$$

$$6 - 4 + 8 + 9 - 7 = \underline{\hspace{2cm}}$$

$$32 + 5 - 7 + 4 - 3 = \underline{\hspace{2cm}}$$

$$51 - 2 + 6 - 3 - 2 = \underline{\hspace{2cm}}$$

$$4 \times 2 + 3 - 7 + 10 = \underline{\hspace{2cm}}$$

$$3 \times 5 - 8 + 5 - 7 = \underline{\hspace{2cm}}$$

$$5 + 9 - 3 - 6 + 5 = \underline{\hspace{2cm}}$$

$$20 - 5 - 8 - 1 + 24 = \underline{\hspace{2cm}}$$



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

SELF TEST 1

Complete these activities (each answer counts as 1 point, except where otherwise noted).

1.01 Complete the sentences with words from the box.

end points	squares	faces
angles	rectangles	

The sides of solid shapes are named _____ .
 The four sides of _____ are equal.
 Line segments begin and end with _____ .

1.02 Write the measurement that is equal.

4 feet = _____ inches 2 pounds = _____ ounces
 5 nickels = _____ pennies

1.03 Find the missing numbers. (3 points each problem)

Problem	Add	Subtract	Check
	76		
	38		
	+ ??		
	159		

Problem	Add	Subtract	Check
	387		
	246		
	+ ???		
	792		

1.04 Write an ordinal number word.

March is the _____ month of the year.

1.05 Write the number before and after.

_____ 5,167 _____ _____ 9,638 _____

_____ 8,000 _____

1.06 Think the answer. Write the answer.

$7 + 3 - 9 + 5 - 6 =$ _____ $42 + 8 + 3 - 10 + 4 =$ _____

$9 - 6 + 7 - 4 + 6 =$ _____ $4 + 8 + 6 - 8 + 40 =$ _____

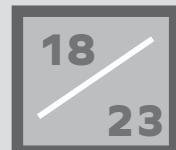


Teacher check:

Score _____

Initials _____

Date _____





MAT_Gr3-5



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800-622-3070
www.aop.com

MAT0308 - Jan '16 Printing

ISBN 978-1-58095-388-7



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