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Introduction

Math Mammoth Grade 3 Review Workbook is intended to give students a thorough review of third grade math, following the main areas of grade 3 mathematics. The book has both topical as well as mixed (spiral) review worksheets, and includes both topical tests and a comprehensive end-of-year test. The tests can also be used as review worksheets, instead of tests, as you prefer.

You can use this workbook for various purposes: for summer math practice, to keep the child from forgetting math skills during other break times, to prepare students who are going into fourth grade, or to give third grade students extra practice during the school year.

The topics reviewed in this workbook are:

- mental addition and subtraction
- regrouping in addition and subtraction
- rounding
- the multiplication concept
- the multiplication tables
- telling time and elapsed time
- money
- four-digit numbers and place value
- division
- measuring
- geometry
- fractions

The content for the worksheets is taken from the tests and mixed review materials of *Math Mammoth Grade 3 Curriculum*, which means the book works especially well to prepare students to enter grade 4 in Math Mammoth. However, the content follows a typical study for grade 3, so the book can be used no matter which math curriculum you follow.

Please note this book does not contain instruction for the topics. It is not intended for initial teaching. It also will not work if the student has not learned the topics at all. For those purposes, please consider *Math Mammoth Grade 3 Curriculum*, which has all the necessary instruction and lessons.

I wish you success with teaching math!

Maria Miller, the author

Addition and Subtraction Review

1. Add.

a.
$$20 + 4 + 7 + 70$$
 b. $3 + 8 + 50 + 8 + 20$
 c. $4 + 60 + 30 + 9$

 = ______
 = ______
 = ______

2. Subtract using mental math.

a.
$$54 - 7 =$$

 b. $82 - 8 =$ _____
 c. $63 - 5 =$ _____

 $35 - 7 =$ _____
 $42 - 9 =$ _____
 $91 - 6 =$ _____

3. Solve using mental math.

a. 303 + 5 =	b. 160 + 70 =	c. 998 – 4 =
299 + 5 =	459 + 6 =	202 – 4 =

4. Write an addition and a subtraction sentence using the given numbers.



5. Add up to find the differences, or use other strategies.



6. Find the **differences**. Think how far apart the numbers are.

a. 92 - 89 =	b. 231 – 228 =	c. $700 - 692 = $
52 - 47 =	603 - 599 =	1000 - 993 =

7. Write an equation (or several) for each problem. Use a letter for the unknown.

a. A squirrel has stowed away 21 nuts in one hole and 17 in another. Then it eats five nuts from the first hole. How many nuts does it now have in total?	
 b. Liam has \$15 and he wants to buy a soccer ball that costs \$28. Then he earned \$5 by weeding a garden. How much more does he still need so he can buy the soccer ball? 	

8. The numbers in the list follow a pattern. Tell whether the *next* number is even or odd, and <u>explain why</u>.

4, 11, 18, 25, 32,

9. Solve for the unknown.



Regrouping and Rounding Test

1. Round the numbers to the nearest ten.

a. 708 ≈	b. 595 ≈	c. 824 ≈	d. 457 ≈

2. Subtract. Check your work.

		Check:			Check:
a.	$\begin{array}{r} 4 & 0 & 4 \\ -1 & 5 & 7 \end{array}$		Ь.	7 2 3 -3 9 7	

3. a. First, estimate the answer to the addition problem.

 $57 + 492 + 83 + 146 \approx$ _____

- **b.** Next, calculate to find the exact answer.
- **c.** Is your answer reasonable? How do you know?



5. One year has 365 days. Of those, 176 are school days. How many days in a year are not school days?



6. Calculate.

a.
$$70 - 40 - 8 + 5 =$$
c. $(300 - 30) + (60 - 20) =$ **b.** $70 - (40 - 8) + 5 =$ **d.** $300 - 30 + (70 - 20) =$

7. Solve.



Mixed Review 1

1. Fill in the missing parts, including in the models, so that the addition and subtraction sentences match the model.



2. Subtract part-by-part: first to the previous whole ten, and then the rest.

a. $53 - 7$ 53 - 3 - 4 =	b. 65 – 8	c. 32 – 8
d. 74 – 6	e. 81 – 4	f. 63 – 6

3. Subtract in parts: Break the second number into its tens and ones.

a. 76 – <u>31</u>	b. 84 – 34	c. 96 – 52
76 - 30 - 1 =		
d. 78 – 15	e. 58 – 36	f. 85 – 44

4. Solve for the unknown.



- 5. **a.** Continue the pattern.
 - **b.** Notice that the answers (the *differences*) form a pattern.

Explain *why* the answers make that pattern.

193 + 2	=	
193 + 4	=	
193 + 6	=	
193 +	_ =	
193 +	_ =	
193 +	=	

6. Write an equation for each problem. Use a letter of your choosing for the unknown.

a. Alicia had \$25 in her purse. She bought a shirt, and now she has \$11 left. How much did the shirt cost?	=
 b. The Wyatt family of four spent \$147 in a clothing store. Clothes for Kathy cost \$60, clothes for Mom cost \$47, and for Dad \$19. How much did the clothes for Alex cost? 	=
c. Mom spent 21 minutes watching three videos on how to fix a printer. The first video was five minutes and the second was nine. How long was the third?	=

- a. What is this three-digit number? The tens digit is half of 10. The hundreds digit is double the ones digit. And the ones digit is half the amount of letters in the word "June."
- **b.** Think outside the box!

Again, this is a three-digit number, and the clues for the digits are: September, October, November.



Multiplication Tables Review

1. Fill in the multiplication chart.

×	1	2	3	4	5	6	7	8	9	10	11	12
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

2. Multiply.

a. $4 \times 2 \times 2 =$ _____ **b.** $9 \times 2 \times 5 =$ _____

3. What mathematical principle does the image illustrate?



c. $3 \times 4 \times 7 =$

4. What single multiplication is equal to $3 \times 7 + 2 \times 7?$

5. Fill in the missing numbers.

a. × 4 = 28	b. $108 = 12 \times$	c. $36 = __ \times 3$
36 = 4 ×	32 = × 8	×3 = 21
× 12 = 84	8 × = 72	× 12 = 60

6. Compare, writing \langle , \rangle , or = in the box between the multiplications.



7. If you need to find 17×8 , how can you use the fact that $17 \times 4 = 68$ to help you?

8. Solve. Write down the calculation(s) you do.

 a. A teacher puts 20 students in groups so that each group has 4 students. How many groups will there be? 	 b. Josefina bought four books of stickers that cost \$3 each and a notebook for \$7. What was the total cost?
There will be groups.	The total cost was
 c. Andy bought some packages of seeds for \$24. Each package cost \$2. How many packages did he buy? 	d. A zoo has five F , s, three f , s, and twenty f s. How many feet do those animals have in total?
He bought packages.	They have feet in total.

9. Figure out the missing numbers in these multiplication charts.

×		7	
	10		30
9			54
		77	

×	12			
11		33		55
	48	12		
			63	35

10. Fill in the skip-counting patterns.

a.			72			48		32
b.		180		300		420		
c.		36			63		81	

Mystery Number 3923199 4770199 (All myster	ery numbers are less than 100.)
a. You can find me both in the table of eleven and in the table of four.	b. I am more than 15. I am in the table of two, the table of three, and the table of four!
I am	I am
c. I am between 15 and 35. The number one more than me is in the table of five. The number one less than me is in the table of four.	d. I am both in the table of four and in the table of three, and if you add one to me, I am in the table of five.
I am	I am
e. I am in the table of 11. The number that is one more than me, is in the table of five, but not in the table of ten.I am	f. I am less than 22 but more than 9, and I am in the table of four. If you exchange my digits, I am in the table of three! I am

Clock and Time Test

1. Write the time the clock shows, and the time 10 minutes later.



3. How much time passes? You can draw a number line for each question to help you.

a. from 6:46 to 7:21

b. from 2:52 to 3:14

4. How much time passes?

a. from 4:13 till 6:13 hou	rs	c. from 3:10 till 3:53	minutes
b. from 7:30 till 7:50 min	utes	d. from 11:26 till 12:00	minutes

- 5. Denny left for orchestra practice at 6:30 PM and arrived back home at 9:30 PM. How long was he gone?
- 6. A family left for a vacation on September 20, and returned two weeks later. On what date did they return?

	September					
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				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	



7. A soccer game started at 1:30 PM, and ended 50 minutes later. What time was it then?

Mixed Review 7

1. Add and subtract using mental math.

a. 76 – 51 =	b. 82 – 39 =	c. 65 – 36 =
d. 385 + 4 =	e. 552 + 9 =	f. 795 + 8 =

2. Find the difference between:

a. 24 and 51	b. 300 and 987	c. 437 and 442

3. One digital music player costs \$89 and another costs \$17 less than the first. If you buy two of the cheaper players, how much do they cost together?

Is your answer reasonable? Explain.

4. Multiply.



5. Solve. Write a number sentence for each problem. You can also draw pictures to help!

a. Every day for a week, Derek read two books. How many books did he read in total?b. Mateo put three pencils in each of the seven pencil cases, and in the eighth one he put five. How many pencils did Mateo put in the pencil cases?

- 6. **a.** Continue the pattern.
 - **b.** Notice that the answers (the *differences*) form a pattern.

Explain *why* the answers make that pattern.



7. Calculate. Circle the operation to be done first.

a. $2 + 5 \times 2$	b. $5 \times (1+1)$	c. $(4-2) \times 7$

8. Choose the addition and/or subtraction that matches the problem. Then solve.

Emilia compared the price \$48 cheaper than the other How much does the cheap	es of two washers. One was r, which cost \$275. per one cost?
275 + 48 = x	x + 48 = 275
275 - 48 = x	x - 48 = 275
The cheaper washer costs	\$

9. Estimate, using *rounded numbers*, the total distance all the way around this rectangular path.



Four-Digit Numbers Review

1. Fill in.

a. Seven thousand two hundred forty	b. Six thousand five	c. Two thousand twenty-nine
Th H T O	Th H T O	Th H T O

2. These numbers are written as sums. Write them in the normal way.

a. 7000 + 500 + 3 =	b. $30 + 1000 + 7 = $
3000 + 90 =	400 + 6000 =

Т

3. Compare. Write \langle , \rangle , or = in the box.

a.	7000 + 50	5000 + 7	b.	500 + 4 + 6000	6000 + 400	+ 5
	20 2000	2000 - 20		100 - 00	2000 - 40	
c.	80 + 3000	3000 + 200) d.	400 + 80	8000 + 40	

4. Add and subtract using mental math.

a. 1,200 + 700 =	b. $3,600 - 300 = $
400 + 6,800 =	4,200 – 500 =
c. 7,200 + = 8,000	d. $3,400 + 1,500 = $
3,000 – = 1,400	7,500 + 800 =

5. One of the three numbers fits on the empty line so that the comparisons are true. Circle that number or write it on the line.

a. 2,430 2,334 2,344	b. 7,089 7,069 7,102	
2,330 < < 2,340	7,070 < < 7,100	



6. Add 348 + 4,502 + 47 + 1,473.

7. Solve (find the number that the symbol stands for).

a.
$$3,400 + \triangle = 4,100$$
 b. $\triangle - 600 = 9,200$
 c. $10,000 - \triangle = 8,500$
 $\triangle = _$
 $\triangle = _$
 $\triangle = _$

8. Subtract. Check your work.



9. Solve.



Mixed Review 13

1. Find the missing numbers.

a.	b.	с.	d.
× 8 = 24	6 × = 18	7 × = 49	× 5 = 25
×8=64	6 × = 66	×7=56	× 5 = 45
× 8 = 40	6 × = 12	7 × = 63	× 5 = 35

2. Subtract.

a. 456	b. 7 2 1	c. 8 0 2	d. 700
-163	-255	- 3 1 6	-538

3. For each addition, write a matching subtraction problem so that the numbers in the boxes are the same. Use mental math.



4. Find the difference between:

a. 78 and 83	b. 631 and 624	c. 500 and 674

5. Compare, using < , > , or = .



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6. Match the times.



7. The class ends at 11:15. How many minutes of class are left at these times?



8. Count up to find the change. Draw the coins and bills for the change.

 a. A fan costs \$25.90. Customer gives \$30. Change: \$ 	
b. Curtains cost \$31.40.Customer gives \$50.	
Change: \$	

9. Add parentheses to each equation to make it true.

a. $10 - 40 - 30 = 0$	b. $4 + 5 \times 2 - 1 = 17$	c. $5 \times 7 - 3 - 1 = 19$
d. $5 + 10 \times 4 - 3 = 15$	e. $50 - 15 + 2 - 9 = 24$	f. $6 + 7 - 3 \times 2 = 14$

Mixed Review 14

1. Write an addition and a subtraction equation to match the bar model. Fill in the missing parts.



2. Multiply.

a. $5 \times 5 =$	b. $2 \times 11 =$	c. $7 \times 8 =$
12 × 12 =	$10 \times 56 =$	8 × 12 =
7 × 5 =	4 × 9 =	6 × 7 =

- 3. Trisha needs three whole weeks to write a report. If she starts writing on November 3rd, when will she finish writing?
- 4. The science class starts at 10:55 and ends 50 minutes later. What time does it end?



5. Solve.

a. $120 + 5 \times 7 =$	b. $12 \times (9-2) =$	c. $(11-3) \times 3 + 5 =$

6. Write an equation using a letter for the unknown. Solve.

Ashley bought a gift for her mom for \$29 and a bottle of water for \$2, and now she has \$16 left. How much money did Ashley have before buying these things?					
Equation:					
Solution: =	Ashley had \$ at first.				
ample worksheet from					

7. Children are watching videos. Write the starting or ending time. The length of the video is given below each exercise.



- 8. Carol bought six apples for \$2.68, a gallon of milk for \$4.99, and a dozen eggs for \$2.95. Calculate the total cost.
- 9. Fill in the missing numbers.

a.
$$40 \div 8 =$$

 b. $30 \div 5 =$ _____
 c. _____ $\div 6 = 6$
d. $72 \div$ _____ = 6

 $72 \div 8 =$ _____
 $56 \div 7 =$ _____
 $\div 5 = 5$
 $45 \div$ _____ = 5

10. Find the number that the triangle stands for.



11. Subtract. Check your answers.



Geometry Review

- 1. **a.** Find the rhombi among these figures.
 - **b.** Find quadrilaterals that are not rectangles nor rhombi.



2. Draw a quadrilateral that doesn't have any equal sides.

			 	L.
				l
				L
				ſ
				L
				ſ
				L
				ſ
				L

3. Match each description to one shape.



- **a.** It has two pairs of equal sides.
- **b.** It has four equal sides.
- **c.** It has two right angles and is a quadrilateral.
- 4. Find the area of a rectangle that is 6 ft wide and 8 ft long.

- **d.** All its sides are equal.
- e. It has one right angle.
- **f.** It is a hexagon.

5. Draw here two different rectangles with an area of 20 square units. Then find the perimeter of each rectangle.

6. Write a multiplication <u>and</u> addition for the areas of these figures.



7. Find the area of this rectilinear shape.



8. Multiply using the shortcut.

9. Find the total area of this rectangle, and the area of each part.

Area of each part:

Total area:



10. Draw and fill in.

- a. Fill in the missing parts, and then draw a two-part rectangle to illustrate this number sentence. $3 \times (5+1) =$ \times + \times **b.** Fill in the missing parts, and then draw a two-part rectangle to illustrate this number sentence. $\underline{\qquad} \times (\underline{\qquad} + \underline{\qquad}) = 4 \times 2 + 4 \times 3$
- 11. Find the perimeter and area of this rectangle. Use a centimeter ruler.

Area:

Perimeter:

12. The one side of this rectangle is 12 in. Its perimeter is 82 in. How long is the other side? Write an equation with an unknown.





Solution: _____

13. Find the area and perimeter of these figures.



Mixed Review 18

1. Add and subtract in your head.

a. 56 + 34 =	b. $28 + 53 =$	c. $19 + 25 =$
d. $83 - 7 =$	e. $90 - 45 =$	f. $45 - 8 =$

2. Find the differences.

a. 40 – 38 =	b. 93 - 88 =	c. $640 - 631 =$

3. Write the multiplication & division fact families.

a.	b.	с.
× 2 = 14	×=	×=
× =	× =	× =
÷ 2 =	35 ÷ = 7	$42 \div 6 = $
÷=	÷=	÷=

4. Write the time using "hours:minutes".

a. a quarter after 1	b. a quarter after 5	c. a quarter till 8	d. a quarter till 12
:	:	:	

5. How many minutes is it from the time on the clock face till the given time?



- 6. **a.** List two measuring units you use to measure the mass of light items, such as an apple or a notebook.
 - **b.** List two measuring units you can use to measure the mass of heavy items, such as a refrigerator or a car.
 - **c.** List two measuring units you can use to measure the height of a TV.
 - **d.** List two measuring units you can use to measure the length of a room.
- 7. Write the weight the scales show using pounds and ounces.



8. Solve.

a. $10 \times 61 =$	b. 9 × 80 =	c. $50 \times 6 =$	d. $20 \times 12 =$
----------------------------	--------------------	---------------------------	----------------------------

9. Solve. Write an equation(s) for each problem, to show the calculation(s) you do.

 a. A car lot has 49 cars parked in an array, with seven cars in each row. How many rows of cars are there? 				
Equation:				
There are rows of cars.				
b. Shelly has three favorite cookie recipes. The first recipe makes 5 dozen cookies, the second recipe makes 4 dozen and the third recipe makes 2 dozen. How many cookies will Shelly have if she makes all three recipes?				
Equation:				
She will have cookies.				
ample worksheet from				



12. Fill in the missing parts. In the grid, draw a two-part rectangle that matches the equation.

$3 \times (1+5) = \underbrace{\times}_{\text{area of the}} + \underbrace{\times}_{\text{area of the}}$ area of the first part second part

13. Solve the problems.

\$6.25 \$4.60	\$16.90 \$2.90
 a. Matt bought butter, cheese, and one loaf of bread. He paid with \$30. He got \$2.25 in change. Was that correct? 	b. Grace bought four cups of yogurt and paid with a \$20-dollar bill. What was her change?

Fractions Review

1. Divide each shape into parts and shade parts to illustrate each fraction.



3. Write the fraction shown by the big dot on the number line.



4. Mark the fraction on the number line (with a dot).



5. Mark these fractions on the number line: $\frac{19}{6}$, $\frac{15}{6}$, $\frac{18}{6}$, $\frac{24}{6}$, $\frac{29}{6}$.



6. Between which two whole numbers is the fraction $\frac{35}{6}$?

7. Write the whole numbers as fractions.



8. Write and shade the equivalent fractions.



9. Write two other fractions that are equivalent to 1/3.





10. Show that $\frac{3}{4}$ and $\frac{6}{8}$ are equivalent fractions.

11. Compare the fractions, writing > , < , or = between them. If you cannot make a valid comparison, then cross the whole problem out.



12. Compare the fractions. Write <, > or = between them.

a.
$$\frac{6}{8}$$
 $\boxed{\frac{7}{8}}$ **b.** $\frac{1}{5}$ $\boxed{\frac{1}{8}}$ **c.** $\frac{3}{8}$ $\boxed{\frac{3}{5}}$ **d.** $\frac{1}{2}$ $\boxed{\frac{2}{4}}$ **e.** $\frac{24}{10}$ $\boxed{\frac{15}{10}}$

13. Explain how you can tell which is the greater fraction: $\frac{5}{2}$ or $\frac{5}{6}$?

14. Write these fractions in order from the smallest to the largest. The fraction bars can help.





- 15. Jack has two paint cans, one bigger and one smaller. Both of them are 1/3 full.
 - a. Which can has more paint in it?
 - **b.** Does this mean that $\frac{1}{3} < \frac{1}{3}$?

Why or why not?







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• Inspire4 is an inspirational website for the whole family I've been privileged to help with: https://www.inspire4.com