

# Math Mammoth End of Year Test - Grade 2

This test is quite long, so I do not recommend to have your child/student to do it in one sitting. Break it into parts and administer them either on consecutive days, or perhaps on morning/evening/morning. Use your judgment.

This is to be used as a diagnostic test. Thus, you may even skip those areas and concepts that you already know for sure your student has mastered.

The test does not cover every single concept that is covered in the *Math Mammoth Grade 2 Complete Worktext*, but all the major concepts and ideas are tested here. This test is evaluating the child's ability in the following content areas:

- basic addition and subtraction facts within 0-18
- three-digit numbers
- carrying in addition
- borrowing in subtraction
- mental calculations
- measuring and drawing with a ruler
- names of shapes
- names and usage of measuring units
- clock to the nearest five minutes
- basic word problems
- multiplication concept

**Note:** problems #1 and #2 are done orally and timed. Let the student see the problems. Read each problem aloud, and wait a maximum of 5 seconds for an answer. Mark the problem as right or wrong according to the student's (oral) answer. Mark it wrong if there is no answer. Then you can move on to the next problem.

You do not have to mention to the student that the problems are timed or that he/she will have 5 seconds per answer, because the idea here is not to create extra pressure by the fact it is timed, but simply to check if the student has the facts memorized (quick recall). You can say for example (vary as needed):

*"I will ask you some addition and subtraction questions. Try to answer me as quickly as possible. In each question, I will only wait a little while for you to answer, and if you don't say anything, I will move on to the next problem. So just try your best to answer the questions as quickly as you can."*

In order to continue with Math Mammoth Grade 3 Complete Worktext, I recommend that the child gain a score of 80% on this test, and that the teacher or parent review with him any content areas that are found weak. Children scoring between 70 and 80% may also continue with grade 3, depending on the types of errors (careless errors or not remembering something, vs. lack of understanding). The most important content areas to master are things related to addition & subtraction (including the word problems), and place value. Again, use your judgment.

# Grading

My suggestion for grading is below. The total is 131 points. A score of 105 points is 80%.

Question	Max. points	Student score
1	16 points	
2	16 points	
3	2 points	
4	2 points	
5	6 points	
6	2 points	
7	4 points	
8	3 points	
9	6 points	
10	3 points	
11	4 points	
12	2 points	
13	2 points	
14	6 points	

Question	Max. points	Student score
15	4 points	
16	6 points	
17	2 points	
18	2 points	
19	3 points	
20	3 points	
21	3 points	
22	6 points	
23	6 points	
24	8 points	
25	2 points	
26	4 points	
27	2 points	
28	6 points	

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# End of Year Test - Grade 2

In problems 1 and 2, your teacher will read you the addition and subtraction questions. Try to answer them as quickly as possible. In each question, he/she will only wait a little while for you to answer, and if you don't say anything, your teacher will move on to the next problem. So just try your best to answer the questions as quickly as you can.

1. Add.

a.	b.	c.	d.
$6 + 7 = \underline{\quad}$	$7 + 4 = \underline{\quad}$	$8 + 8 = \underline{\quad}$	$9 + 5 = \underline{\quad}$
$9 + 9 = \underline{\quad}$	$5 + 8 = \underline{\quad}$	$6 + 6 = \underline{\quad}$	$7 + 7 = \underline{\quad}$
$5 + 6 = \underline{\quad}$	$3 + 9 = \underline{\quad}$	$2 + 9 = \underline{\quad}$	$8 + 6 = \underline{\quad}$
$8 + 7 = \underline{\quad}$	$5 + 7 = \underline{\quad}$	$4 + 8 = \underline{\quad}$	$8 + 9 = \underline{\quad}$

2. Subtract.

a.	b.	c.	d.
$12 - 3 = \underline{\quad}$	$11 - 3 = \underline{\quad}$	$14 - 5 = \underline{\quad}$	$13 - 4 = \underline{\quad}$
$15 - 7 = \underline{\quad}$	$12 - 8 = \underline{\quad}$	$12 - 4 = \underline{\quad}$	$15 - 6 = \underline{\quad}$
$13 - 6 = \underline{\quad}$	$14 - 6 = \underline{\quad}$	$18 - 9 = \underline{\quad}$	$12 - 6 = \underline{\quad}$
$11 - 7 = \underline{\quad}$	$16 - 8 = \underline{\quad}$	$16 - 7 = \underline{\quad}$	$14 - 7 = \underline{\quad}$

3. Write an addition that matches with the subtraction  $120 - 55 = 65$ .

4. Find the difference of 250 and 900.

5. Find the missing numbers.

a.  $22 + \underline{\quad} = 30$

b.  $54 + \underline{\quad} = 62$

c.  $4 + \underline{\quad} + 9 = 22$

$13 + \underline{\quad} = 21$

$22 + \underline{\quad} = 100$

$\underline{\quad} + 30 + 20 = 92$

6. Write with numbers.

a. 6 tens 2 hundreds 7 ones =           

b. 8 ones 9 hundreds =           

7. Write the numbers in order from smallest to greatest.

a. 417, 714, 447

b. 89, 998, 809

8. Add.

a. 
$$\begin{array}{r} 35 \\ 36 \\ + 12 \\ \hline \end{array}$$

b. 
$$\begin{array}{r} 224 \\ + 478 \\ \hline \end{array}$$

c. 
$$\begin{array}{r} 438 \\ 17 \\ + 293 \\ \hline \end{array}$$

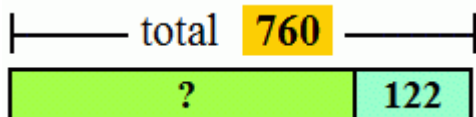
9. Subtract. Check by adding.

a. 
$$\begin{array}{r} 61 \\ - 37 \\ \hline \end{array}$$
 Check: 
$$\begin{array}{r} + \\ \hline \end{array}$$

b. 
$$\begin{array}{r} 970 \\ - 248 \\ \hline \end{array}$$
 Check: 
$$\begin{array}{r} + \\ \hline \end{array}$$

c. 
$$\begin{array}{r} 802 \\ - 415 \\ \hline \end{array}$$
 Check: 
$$\begin{array}{r} + \\ \hline \end{array}$$

10. The question mark signifies an unknown number. Write an addition problem and a subtraction problem to match the picture. Find what number "?" stands for.



$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$\underline{\quad} - \underline{\quad} = \underline{\quad}$

"?" is           .

11. Compare the expressions and write  $<$ ,  $>$ , or  $=$ .

a.  $100 - 5 - 3$    $98 - 6$

b.  $40 + 8 + 200$    $20 + 800 + 4$

c.  $50 + 120$    $125$

d.  $\frac{1}{2}$  of 800   $5 + 399$

12. The distance from Mark's home to his Grandma's house is 218 miles. How many miles long is a round trip?

13. Ed has saved \$26.50. How much more does he need in order to buy a toolset for \$32?

14. Write the time with hours:minutes, and using “past”, “till”, “half past” or “o'clock”.



a. \_\_\_\_\_ : \_\_\_\_\_  
\_\_\_\_\_ past \_\_\_\_\_



b.



c.

15. Fill in the table.

from	2:55	8:50	4:15	9:45	8:05
to	3:05			10:05	9:00
minutes	<u>10 minutes</u>	20 minutes	30 minutes		

16. Calculate mentally.

a.  $56 + 7 =$  \_\_\_\_\_

$67 + 20 =$  \_\_\_\_\_



b.  $520 - 200 =$  \_\_\_\_\_

$152 + 300 =$  \_\_\_\_\_

c.  $762 - 20 =$  \_\_\_\_\_

$762 - 200 =$  \_\_\_\_\_

17. How much money? Write the amount.

 <p>a. \$ _____</p>	 <p>b. \$ _____</p>
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18. Find the change, if you buy a meal for \$3.35 and you pay with \$4.

19. Jennifer buys two vacuum cleaners for \$52 each and pays with a \$500-bill.  
What is her change?

20. A box contains 400 disks. 156 of them are music CDs and the rest are DVDs.  
How many DVDs are in the box?

21. By Monday, Edward had read 255 pages of his 560-page book.  
The next day he read 88 pages more.  
How many pages does he have left to read?

22. Name the shapes. Count how many right angles and how many angles the shapes have.

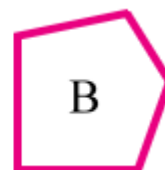
Shape A: \_\_\_\_\_ Shape B: \_\_\_\_\_

\_\_\_\_\_ angles total

\_\_\_\_\_ angles total

\_\_\_\_\_ right angle(s)

\_\_\_\_\_ right angle(s)



23. a. Join the dots in order (A-B-C-D) with straight lines. Use a ruler.

A

b. What shape is formed?

D

B

C

c. Measure the sides of the shape to the nearest half-inch.

Side AB: about \_\_\_\_\_ Side BC: about \_\_\_\_\_

Side CD: about \_\_\_\_\_ Side DA: about \_\_\_\_\_

24. Which measuring unit or units could you use to find these amounts?  
Sometimes several units are possible.

Distance	Unit(s)
the length of a park	
the distance from London to New York	
the weight of a cell phone	
the volume of a water tank	
the height of a wall	
how heavy Mrs. Grass is	
how much juice fits into a glass	
how much a car weighs	

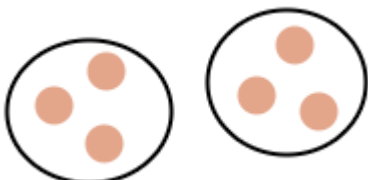

25. Measure this line to the nearest centimeter.

 about \_\_\_\_\_ cm

26. Every day Janet jogs around a rectangle-shaped jogging track. Its one side measures 213 yards and another side 228 yards.

- a. Draw a sketch of the track and mark the distances.
- b. Calculate what distance Janet goes when she jogs once around it.

27. Write a multiplication sentence for each picture.

<p>a.</p> 	<p>b.</p> 
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28. Write an addition sentence for each multiplication, and solve.

<p>a. <math>2 \times 40</math></p>	<p>b. <math>3 \times 15</math></p>	<p>c. <math>5 \times 100</math></p>
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