

# Math Mammoth Grade 6 End-of-the-Year Test

## Instructions

This test is quite long, because it contains lots of questions on all of the major topics covered in the *Math Mammoth Grade 6 Complete Curriculum*. Its main purpose is to be a diagnostic test—to find out what the student knows and does not know. The questions are quite basic and do not involve especially difficult word problems.

Since the test is so long, I do not recommend that you have the student do it in one sitting. You can break it into 3-5 parts and administer them on consecutive days, or perhaps on morning/evening/morning/evening. Use your judgment.

**A calculator is not allowed, except on the page about measuring units.**

The test is evaluating the student's ability in the following content areas:

- exponents, expanded form, and rounding
- writing and simplifying expressions
- the distributive property
- the concept of an equation and solving simple equations
- the concept of inequality
- all operations with decimals
- conversions between measuring units
- basic ratio concepts
- the concept of percentage, finding percentages, finding the percent of number
- prime factorization, the greatest common factor, and the least common multiple
- division of fractions
- basic concepts related to integers
- addition and subtraction of integers
- the area of triangles, parallelograms, and polygons
- surface area and nets
- the volume of rectangular prisms
- describing statistical distributions
- measures of center
- statistical graphs

In order to continue with the *Math Mammoth Grade 7 Complete Worktext*, I recommend that the student gain a score of 80% on this test, and that the teacher or parent review with the student any content areas in which the student may be weak. Students scoring between 70% and 80% may also continue with grade 7, depending on the types of errors (careless errors or not remembering something, versus a lack of understanding). Again, use your judgment.

## Grading

My suggestion for points per item is as follows. The total is 194 points. A score of 155 points is 80%.

Question #	Max. points	Student score
<b>Basic Operations</b>		
1	2 points	0
2	3 points	2
3	2 points	0
4	2 points	2
<i>subtotal</i>		4 / 9
<b>Expressions and Equations</b>		
5	4 points	2
6	2 points	2
7	2 points	0
8	1 point	0
9	2 points	0
10	2 points	0
11	2 points	0
12	2 points	0
13	2 points	0
14	2 points	0
15	1 point	0
16	2 points	2
17	2 points	0
18	2 points	0
19	4 points	1
<i>subtotal</i>		7 / 32
<b>Decimals</b>		
20	2 points	1
21	2 points	0
22	1 point	0
23	2 points	0
24	2 points	0
25	1 point	0
26	2 points	0
27	2 points	0
28a	1 point	0
28b	2 points	0
29	3 points	0
<i>subtotal</i>		1 / 20

Question #	Max. points	Student score
<b>Measuring Units</b>		
30	3 points	0
31	1 point	0
32	2 points	0
33	3 points	0
34	6 points	0
35	4 points	0
<i>subtotal</i>		0 / 19
<b>Ratio</b>		
36	2 points	0
37	2 points	0
38	2 points	0
39	2 points	0
40	2 points	0
41	2 points	0
42	2 points	0
<i>subtotal</i>		0 / 14
<b>Percent</b>		
43	3 points	0
44	4 points	0
45	2 points	0
46	2 points	2
47	2 points	0
<i>subtotal</i>		2 / 13

$$33 / 194 = 17\%$$

Question #	Max. points	Student score
<b>Prime Factorization, GCF, and LCM</b>		
48	3 points	3
49	2 points	0
50	2 points	0
51	2 points	0
52	2 points	0
<i>subtotal</i>		3 / 11
<b>Fractions</b>		
53	3 points	1
54	2 points	0
55	2 points	2
56	2 points	0
57	3 points	0
58	3 points	0
<i>subtotal</i>		3 / 15
<b>Integers</b>		
59	2 points	2
60	2 points	1
61	2 points	2
62	4 points	3
63	5 points	0
64	6 points	6
65	4 points	0
<i>subtotal</i>		13 / 25

Question #	Max. points	Student score
<b>Geometry</b>		
66	1 point	0
67	1 point	0
68	3 points	0
69	4 points	0
70	2 points	0
71a	1 point	0
71b	3 points	0
72	4 points	0
73a	2 points	0
73b	2 points	0
<i>subtotal</i>		0 / 23
<b>Statistics</b>		
74a	2 points	0
74b	1 point	0
74c	2 points	0
75a	1 point	0
75b	1 point	0
76a	2 points	0
76b	1 point	0
76c	1 point	0
76d	2 points	0
<i>subtotal</i>		0 / 13
<b>TOTAL</b>		/ 194