

Grade 8 Math

Complete Revision Pack

Diagnostic Test + Three Full Practice Papers + Progress Tracking

Student Name	
Start Date	
Teacher/Parent	

160

Questions

4

Assessments

5

Math Domains

Common Core-aligned Grade 8 mathematics for US middle-school students

Original educational content. Not an official or endorsed Common Core assessment.

Recommended order

- Complete the Grade 8 Diagnostic Test before targeted revision.
- Review the answer key and mark each domain score.
- Complete Practice Paper 1 after reviewing priority foundations.
- Use Practice Paper 2 for applications and multi-step reasoning.
- Use Practice Paper 3 as the final cumulative mastery check.
- Correct every missed question before moving to the next assessment.

What is included

Component	Student material	Purpose
Diagnostic Test	40 questions	Identify the starting profile
Practice Paper 1	40 questions	Core skills and fluency
Practice Paper 2	40 questions	Applications and multi-step reasoning
Practice Paper 3	40 questions	Cumulative mastery and reasoning

Tracking pages help the student compare total scores, domain scores, revision priorities, and final progress.

Grade 8 Math Practice Paper 1

Core Skills and Fluency

Student Name	
Date	
Teacher/Parent	

40 Questions	60 Minutes	No Calculator
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Common Core-aligned Grade 8 practice for US middle-school mathematics

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Assessment directions

- Allow 60 minutes and work independently.
- Do not use a calculator.
- Choose one answer for each multiple-choice question.
- Show clear working for short-answer, multi-step, and reasoning questions.
- Complete all 40 questions. Each question is worth 1 point.

Quick Answer Record

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		31		32	
33		34		35		36	
37		38		39		40	

Domain Allocation

Domain	Questions	Maximum Score
The Number System	1-4	4
Expressions and Equations	5-16	12
Functions	17-24	8
Geometry	25-34	10
Statistics and Probability	35-40	6

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Scoring Guidance + Worked Solutions + Standards Coverage

Student Name

Start Date

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Answers

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Score Guides

5

Standards Domains

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Recommended Assessment Sequence **Use evidence to guide revision**

Administration sequence

- Administer the Diagnostic Test before targeted review.
- Allow about 60-75 minutes for the diagnostic and 60 minutes for each practice paper.
- Follow the calculator directions printed on each paper.
- Score one point per question unless a question-specific full-credit note is stated.
- Review the worked solution for each incorrect or incomplete response.
- Record domain scores before choosing the next study focus.

Scoring written responses

One-point scoring

- Award 1 point for a correct answer supported by a valid method when work, explanation, or justification is requested.
- Award 0 points for an incorrect answer, an unsupported guess on a constructed response, or reasoning that does not address the prompt.
- Accept mathematically equivalent forms unless the question requires a specific representation.
- For graph, interpretation, and two-way-table items, use the question-specific worked solution to judge full-credit reasoning.
- Record concept, procedure, sign, unit, representation, or attention errors separately when useful.

Practice Paper 1

Answer Key & Worked Solutions

Core Skills and Fluency

40 Answers	5 Domains	100% Worked
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Matches the corrected Grade 8 Math Practice Paper 1 Student Version.
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Quick Answer Key		Questions 1-20 40 points total
Question	Answer	CCSS
1	C. $\sqrt{18}$	8.NS.1
2	C. 8 and 9	8.NS.2
3	B. 6.7	8.NS.2
4	C. $\sqrt{20} > 4.4$	8.NS.2
5	A. 2^7	8.EE.1
6	B. 3^6	8.EE.1
7	13	8.EE.2
8	B. -6	8.EE.2
9	A. 7.2×10^{-5}	8.EE.3
10	3.9×10^7	8.EE.3
11	A. 6×10^7	8.EE.4
12	4×10^4	8.EE.4
13	B. 2	8.EE.6
14	$y = 3x + 1$	8.EE.6 / 8.F.4
15	B. $x = 7$	8.EE.7
16	(3, 6)	8.EE.8
17	B. $\{(0,3), (1,3), (2,3)\}$	8.F.1
18	B. 3	8.F.4
19	A. Function A	8.F.2
20	C. 6	8.F.4

Scoring rule

- Award 1 point for each fully correct response.
- Equivalent mathematically correct forms are acceptable for constructed-response items.
- For Question 10 and Question 22, full credit requires the requested explanation as well as the correct conclusion.