7 Oregon OSAS Grade 7 Math Practice Tests

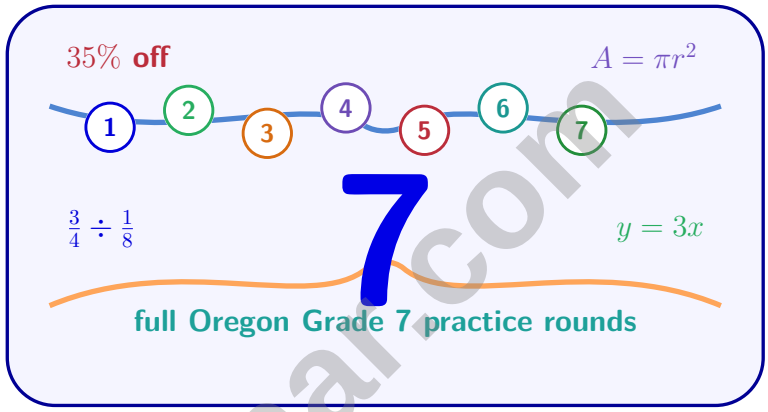
ONLINE

7 PRINTED TESTS + 2 ONLINE TESTS

Standards Aligned Problem Solving For Comprehensive Assessment Programs

8 Oregon OSAS Grade 7 Math Practice Tests

A student-centered review of Oregon Grade 7 ratios, rational numbers, expressions, equations, prisms, cylinders, and chance



Eight complete 40-question Grade 7 OSAS practice rounds with proportional relationships, percents, rational numbers, expressions, equations, geometry, statistics, probability, answer keys, and clear explanations for every item.

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Welcome, Oregon Grade 7 Problem Solver!

Eight focused rounds for sharper OSAS math thinking

This book gives you seven full Grade 7 OSAS math practice tests. Each round is built to help you notice structure, compare quantities, use proportional reasoning, handle rational numbers, and explain your thinking with care.

Your Oregon Practice Promise

I will read every question carefully, choose a strategy that fits, write enough work to prove my answer, and use corrections as training for the next test.

How to Use This Book

An eight-session plan for confident Grade 7 review

1. **Warm up with the review pages.** Notice the big ideas before starting the tests.
2. **Complete one test at a time.** Treat each 40-question round like a real practice session.
3. **Show your reasoning.** Jot a proportion, equation, diagram, number line, or quick estimate when it helps.
4. **Correct actively.** Rework missed items before reading the explanation.
5. **Choose the next target.** After each test, name one skill and one habit to improve.

Oregon review rhythm: Work a test, score it, study your misses, then come back ready for the next round with one clear goal.

What Is Inside?

Eight OSAS tests, 280 questions, and a complete review path

Part	What You Will Practice
Tests 1–3	Proportional relationships, unit rates, percents, rational-number operations, and careful reading.
Tests 4–6	Expressions, equations, inequalities, scale drawings, geometry, and multi-step problem solving.
Tests 7–8	Statistics, probability, mixed review, stamina, and choosing efficient strategies.
Answer Pages	Compact keys and explanations that show why each answer works.

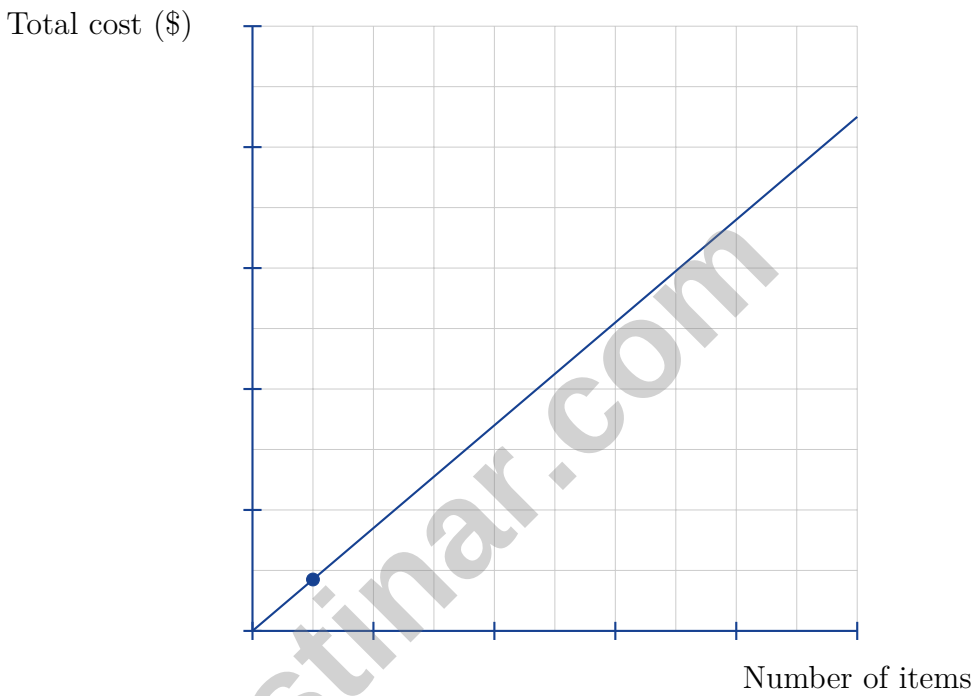
The tests are mixed on purpose. Grade 7 success means recognizing which idea is being tested even when the next question changes format.

Table of Contents

1) Your checking account statement shows a current balance of $1 240. You have written checks totaling $340 that have not yet cleared. What is your actual available balance?

☐ A. $800
☐ B. $1 240
☐ C. $1 000
☐ D. $900

2)



From this proportional relationship graph, identify the unit-rate point and find the cost per item.

3) A simulation uses a spinner with two equal sections to model guessing on a multiple-choice question with four choices. Is this a good model?

☐ A. Yes, because both have equally likely outcomes
☐ B. Yes, because the spinner is easy to use
☐ C. No, because the probabilities do not match
☐ D. No, because you cannot use a spinner twice

4) A student claims: "A negative times a positive is always larger than a positive times a positive." Which is the BEST counterexample?

☐ A. $(-1) \times 10 = -10$ and $2 \times 5 = 10$
☐ B. $(-5) \times 2 = -10$ and $3 \times 4 = 12$
☐ C. $(-100) \times 1 = -100$ and $1 \times 1 = 1$
☐ D. $(-1) \times 1 = -1$ and $1 \times 1 = 1$

5) Which number is a perfect square?

☐ A. 15
☐ B. 25
☐ C. 35
☐ D. 45

6) A barber charges \$25 per haircut and performs 8 haircuts in a day. If the barber earns a 40% commission on all haircut fees, what is the total commission for the day?

☐ A. \$40
☐ B. \$200
☐ C. \$100
☐ D. \$80

7) Which equation does NOT represent the additive inverse property?

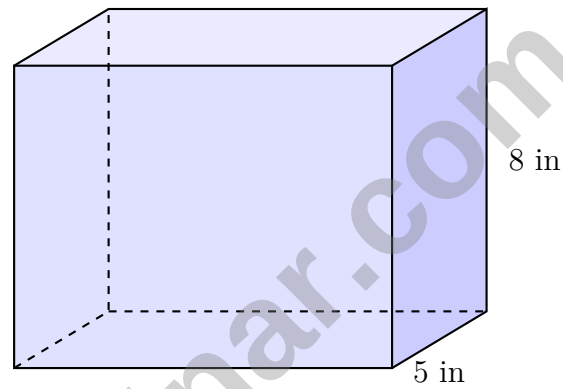
☐ A. $-7 + 7 = 0$
☐ B. $35 + (-35) = 0$
☐ C. $-20 + 0 = -20$
☐ D. $100 + (-100) = 0$

8) The temperature was $-7°C$ in the morning. It rose by $15°C$ during the day. What was the temperature after the rise?

☐ A. $-22°C$
☐ B. $-8°C$
☐ C. $8°C$
☐ D. $22°C$

9) Which expression is equivalent to $-3(2x + 5)$?

☐ A. $-6x - 15$
☐ B. $-6x + 15$
☐ C. $6x - 15$
☐ D. $-6x + 5$



10)

Which rectangular prism dimensions would give a surface area of exactly 340 square inches?

☐ A. 10 in × 8 in × 5 in
☐ B. 10 in × 9 in × 5 in
☐ C. 12 in × 8 in × 5 in
☐ D. 11 in × 8 in × 5 in

11) Evaluate $\frac{m}{2} + 6$ when $m = 10$.

☐ A. 8
☐ B. 26
☐ C. 16
☐ D. 11

1) A stem-and-leaf plot shows:

Stem	Leaves
30	2, 5, 8
31	1, 4, 7
32	0, 3, 6, 9

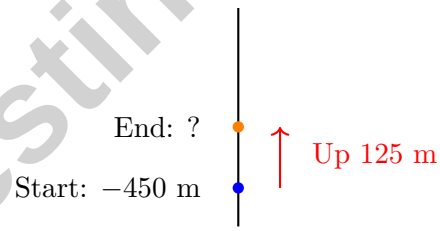
How many three-digit values are between 305 and 315 (inclusive)?

☐ A. 1
☐ B. 2
☐ C. 3
☐ D. 4

2) A pair of jeans costs \$80. After a 20% discount, express the final price in factored form.

☐ A. $80(1 - 0.2)$
☐ B. $80(0.2)$
☐ C. $0.8(80)$
☐ D. 80×20

3) A submarine is at a depth of -450 meters. It ascends (moves up) 125 meters. What is its new depth?



4) A dot plot shows customer wait times (in minutes) at two restaurants. Restaurant X: 3, 4, 4, 5, 5, 5, 6, 6, 7 (minutes); Restaurant Y: 2, 5, 8, 10, 12, 15 (minutes). Which restaurant has more predictable wait times?

☐ A. Restaurant X (clustered around 5 minutes)
☐ B. Restaurant Y (varies from 2 to 15 minutes)
☐ C. Both restaurants have equally predictable times
☐ D. Restaurant Y is always faster

5) A construction worker needs to find the area of a lot shaped like a rectangle (16 yd × 12 yd) minus a triangular section (12 yd base, 4 yd height) cut from one corner. What is the usable area?

☐ A. 168 yd^2
☐ B. 176 yd^2
☐ C. 192 yd^2
☐ D. 216 yd^2

6) A rectangular prism has a square base with side length 7 cm and a height of 11 cm. What is the volume?

☐ A. 49 cm^3
☐ B. 77 cm^3
☐ C. 539 cm^3
☐ D. 1,078 cm^3

7) A circle has a diameter of 24 cm. What is half the radius?

☐ A. 3 cm
☐ B. 6 cm
☐ C. 12 cm
☐ D. 24 cm

1) Evaluate: 6^0

☐ A. 0
☐ B. 1
☐ C. 6
☐ D. -1

2) A movie ticket costs \$9 and popcorn costs \$4 per order. If you spend \$25 total, how many orders of popcorn did you buy?

3) A student saves \$50 per month toward a goal of buying a laptop that costs \$800. How many months will it take to save enough money?

☐ A. 12 months
☐ B. 14 months
☐ C. 16 months
☐ D. 18 months

4) A proportional relationship is shown in the table. What is the missing value?

x	y
3	12
5	20
7	?

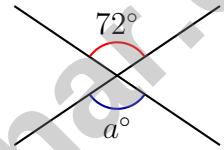
☐ A. 24
☐ B. 25
☐ C. 27
☐ D. 28

5) A credit score ranges from 300 to 850. A score above 700 is considered good. Jamie's score is 680. By how many points does her score fall short of the good credit threshold?

☐ A. 15 points
☐ B. 30 points
☐ C. 25 points
☐ D. 20 points

6) A television network wants to know what percentage of households in the United States watch sports. It surveys viewers who call into its sports hotline. Why is this a biased sample?

☐ A. It only includes people who already watch sports and made the effort to call
☐ B. It uses random sampling
☐ C. It has no bias because hotline numbers are public
☐ D. The sample size is too small

7) 

Two lines intersect forming vertical angles. One angle is 72°. What is the measure of the vertically opposite angle a?

☐ A. 18°
☐ B. 72°
☐ C. 108°
☐ D. 180°

Oregon Statewide Assessment System Grade 7 Practice Test Answer Keys

How to use this section with a Grade 7 student:

1. check the answer first and circle any item that needs another look
2. retry the problem with fresh work before reading the explanation
3. write one short lesson learned from each missed or guessed item

A strong review routine turns every correction into a sharper plan for the next Oregon Statewide Assessment System practice test.

Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

1) **Choice D is correct.** 7.RP.3 Available balance: $\$1\,240 - \$340 = \$900$ (after pending checks clear).
2) **The correct answer is** 0.85 **.** 7.RP.1-7.RP.3 The marked point is $(1, 0.85)$, which is the unit-rate point. This means the constant of proportionality is $k = 0.85$, so the cost is \$0.85 per item.
3) **Choice C is correct.** 7.SP.5-7.SP.8 True guessing probability on a 4-choice question is $\frac{1}{4}$, not $\frac{1}{2}$. A spinner with 4 equal sections would be better.
4) **Choice A is correct.** 7.NS.2 Option A directly disproves the claim: negative times positive (-10) is smaller, not larger, than positive times positive (10). The products are equal in magnitude but opposite in sign, showing the claim is false. Options B, C, D also work but use less intuitive magnitudes.
5) **Choice B is correct.** 7.NS.1-7.NS.3 Perfect squares are numbers like 4, 9, 16, 25 that are products of a whole number times itself. Since $5 \times 5 = 25$, it is a perfect square.
6) **Choice D is correct.** 7.RP.3 Total haircut revenue $= 25 \times 8 = \$200$. Commission = commission rate $\times$ sales $= 0.40 \times 200 = \$80$.
7) **Choice C is correct.** 7.NS.1-7.NS.3 The additive inverse property states that a number plus its opposite equals zero. Option C shows a number plus zero, which is the additive identity property, not the inverse property.
8) **Choice C is correct.** 7.NS.1b The temperature change is modeled by $-7 + 15 = 8$. A rise of 15° means we add 15 to the initial temperature of $-7°$.
9) **Choice A is correct.** 7.EE.1-7.EE.2 Distribute: $-3(2x + 5) = -3(2x) + (-3)(5) = -6x - 15$.
10) **Choice A is correct.** 7.G.4-7.G.6 $SA = 2(10 \cdot 8 + 10 \cdot 5 + 8 \cdot 5) = 2(80 + 50 + 40) = 2(170) = 340$ in^2.
11) **Choice D is correct.** 7.EE.1-7.EE.2 Substitute: $\frac{10}{2} + 6 = 5 + 6 = 11$.
12) **Choice B is correct.** 7.EE.1 Combine: $(-4 + 6 - 5)m = -3m$.
13) **Choice B is correct.** 7.SP.1-7.SP.4 Phone directories only include people with listed landline numbers, which excludes people with unlisted numbers and younger voters who use only cell phones. This coverage bias makes the sample unrepresentative of all voters in the area.
14) **Choice C is correct.** 7.NS.1-7.NS.3 Common denominator 6: $-\frac{4}{6} - \frac{5}{6} = -\frac{9}{6} = -\frac{3}{2} = -1\frac{1}{2}$.
15) **Choice C is correct.** 7.NS.1-7.NS.3 $(-360) \div 4 = -90$ indicates each person's debt (or share) is \$90 (or $-\$90$ in ledger terms).
16) **Choice C is correct.** 7.NS.1-7.NS.3 Paper weight: $4.2 \times \frac{3}{7} = \frac{12.6}{7} = 1.8$ kg.
17) **Choice A is correct.** 7.EE.3-7.EE.4 Subtract 6: $-2x = 12$. Divide by -2: $x = -6$. Check: $-2(-6) + 6 = 12 + 6 = 18$ ✓. Reasonable: negative coefficient times negative answer yields positive; add 6 gives 18.
18) **Choice A is correct.** 7.EE.4b Subtract 5: $-3x \geq -15$. Divide by -3 and flip: $x \leq 5$.
19) **Choice C is correct.** 7.G.1-7.G.5 Scale 1 : 3 means the enlargement is 3 times the original: $4 \times 3 = 12$ inches.
20) **The correct answer is A,B.** 7.RP.1-7.RP.3 A and B. Each point satisfies $y/x = 3$, so the table is proportional with constant ratio 3 (A) and is modeled by $y = 3x$ (B). C is false: the constant of proportionality is 3, not $\frac{1}{3}$. D is false: $y = 3x - 1$ would give $y = 2$ at $x = 1$, not 3.
21) **The correct answer is** \$30 **.** 7.RP.3 The increase is 25% of $\$24 = 0.25 \times 24 = 6$ dollars. New price: $24 + 6 = 30$ dollars.
22) **Choice D is correct.** 7.G.1-7.G.5 Angles on a straight line sum to 180°: $f = 180 - 56 = 124°$.
23) **Choice B is correct.** 7.G.1-7.G.5 First reflection over $y = x$: $(1, -3) \to (-3, 1)$. Second reflection over x-axis: $(-3, 1) \to (-3, -1)$.
24) **Choice B is correct.** 7.G.1-7.G.5 The scale factor is $\frac{28}{20} = 1.4$. We can verify: $10 \times 1.4 = 14$ ✓
25) **Choice C is correct.** 7.G.4-7.G.6 Area of full circle: $A = 3.14 \times 8^2 = 3.14 \times 64 = 200.96$ cm^2. Quarter: $\frac{200.96}{4} = 50.24$ cm^2.
26) **The correct answer is** 60 **.** 7.RP.3 Calculate $\frac{5}{12} \times 144 = \frac{5 \times 144}{12} = \frac{720}{12} = 60$ books.
27) **Choice A is correct.** 7.SP.1-7.SP.4 Gym X: deviations = 0, 0, 1, 0, 1 (MAD ≈ 0.4). Gym Y: deviations = 11, 9, 1, 9, 6 (MAD ≈ 7.2). Gym X's tight cluster (44–46) vs. Gym Y's spread (30–50) shows Gym X is more consistent.

Hi, Momentum Builder!

◇ Finishing a Grade 7 practice book is not a small thing. It means you practiced persistence, patience, and flexible problem solving. ◇

⋆ **Remember this:** Some questions were quick. Others probably made you stop and think. Both kinds helped you grow because practice turns effort into confidence. This version gave you 7 opportunities to rehearse test-day habits. ⋆

Momentum Habits

- **Start Clean:** Write down what the problem gives you.
- **Pick a Tool:** Use a table, model, equation, or graph.
- **Keep Moving:** Skip and return when needed.
- **Review Smart:** Study mistakes without judging yourself.

Grade 7 test-day tip: If a problem feels stuck, change tools. A graph, table, or sketch can make the same idea clearer.

If you want to share something or ask a question, please email me at jay@testinar.com.

Jay Daie

Your Math Momentum Partner

Practice Today. Succeed Tomorrow!

This book includes 7 full-length Math practice tests and 2 online tests to help Grade 7 students build confidence, strengthen skills, and excel on standardized assessments.

Each practice test is carefully crafted to reflect the latest standards and includes a variety of question types, realistic test conditions, and detailed answer explanations.

Perfect for classroom use, homework, test preparation, and extra practice at home.

THIS BOOK INCLUDES:

- **7** Full-Length Printed Tests
- **2** Online Practice Tests
- Detailed Answer Explanations

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Give your child the tools to build strong math skills, confidence, and a positive attitude toward learning.

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Build a solid foundation through targeted practice and review.

Better Problem Solving
Develop logical thinking and effective solution strategies.

Deeper Understanding
Reinforce key concepts with clear explanations and meaningful practice.

Test Confidence
Familiarize with test formats and improve accuracy and speed.

Achieve Success
Build confidence and perform your best on test day.

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- Geometry
- Percents & Decimals
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- Data Analysis
- Measurement & Conversions
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