Solving Multi-Step Problems with Conversions

Solving Multi-Step Problems with Conversions: Apply, Compare, and Design

Name _____ **Date** _____ **Score** _____ / 6

QUICK REVIEW

Convert to one unit before combining or sharing. A 2 m rope with 30 cm removed has $2 \times 100 - 30 = 170$ cm left. Dividing that among 5 gives $170 \div 5 = 34$ cm each. Keep the unit after every step.

Worked example

A jug starts with 2.5 L of water and fills 5 bottles of 400 mL each. Find the milliliters left. Use 1 L $= 1000$ mL.

1. Start: $2.5 \times 1000 = 2500$ mL.
2. Used: $5 \times 400 = 2000$ mL.
3. Left: $2500 - 2000 = 500$ mL.
Answer: 500 mL.

Practice Problems

Show your thinking.

1. A race is 2.4 km. Each lap is 300 m. Design the lap count. Use 1 km $= 1000$ m.

2. Plan A has 3 bottles of 750 mL; plan B has 2 bottles of 1.2 L. Which has more, and by how many milliliters? Use 1 L $= 1000$ mL.

3. A 5 lb bag must provide 12 portions of 6 oz. Is it enough? Find the ounces left. Use 1 lb $= 16$ oz.

4. Design 5 equal pieces from 2 m of ribbon after saving 25 cm uncut. Find piece length in centimeters. Use 1 m $= 100$ cm.

5. A 2 h event includes 35 min of setup and 4 activities of 18 min each. Find the unassigned minutes. Use 1 h $= 60$ min.

6. A plan needs 3.2 kg. A child chooses 4 bags of 750 g and claims this is enough. Test the plan and find the shortfall. Use 1 kg $= 1000$ g.

Answer Key

1. 8 laps.
2. B; 150 mL more.
3. Yes; 8 oz left.
4. 35 cm.
5. 13 min.
6. Not enough; 200 g short.

Step-by-Step Solutions

Follow each calculation, then check your own work.

Problem 1

1. Race length: $2.4 \times 1000 = 2400$ m.
2. $2400 \div 300 = 8$ laps.
3. $8 \times 300 = 2400$ m checks the design.

Problem 2

1. A: $3 \times 750 = 2250$ mL.
2. B: $2 \times 1.2 \times 1000 = 2400$ mL.
3. $2400 - 2250 = 150$ mL.

Problem 3

1. Supply: $5 \times 16 = 80$ oz.
2. Needed: $12 \times 6 = 72$ oz.
3. $80 - 72 = 8$ oz left.

Problem 4

1. Usable: $2 \times 100 - 25 = 175$ cm.
2. $175 \div 5 = 35$ cm per piece.
3. $5 \times 35 + 25 = 200$ cm checks the plan.

Problem 5

1. Event: $2 \times 60 = 120$ min.
2. Assigned: $35 + 4 \times 18 = 107$ min.
3. $120 - 107 = 13$ min remain.

Problem 6

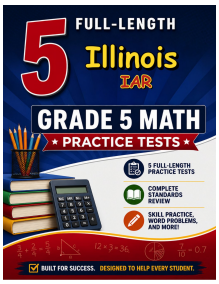
1. Needed: $3.2 \times 1000 = 3200$ g.
2. Supply: $4 \times 750 = 3000$ g.
3. $3200 - 3000 = 200$ g short.

TESTINAR

Keep Building Grade 5 Math Skills

Choose the practice book matched to your state assessment and turn worksheet practice into a complete test-prep plan.

All Grade 5 books



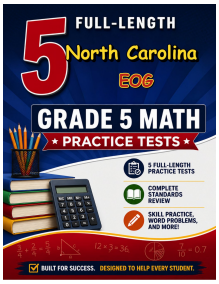
ILLINOIS IAR

5 Full-Length Math Practice Tests

Build Grade 5 accuracy, confidence, and test stamina with 5 printable practice tests.

Printable eBook • Instant PDF access

View eBook



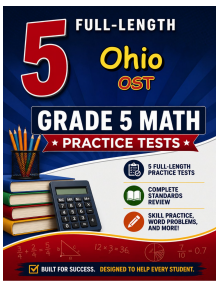
NORTH CAROLINA EOG

5 Full-Length Math Practice Tests

Build Grade 5 accuracy, confidence, and test stamina with 5 printable practice tests.

Printable eBook • Instant PDF access

View eBook



OHIO OST

5 Full-Length Math Practice Tests

Build Grade 5 accuracy, confidence, and test stamina with 5 printable practice tests.

Printable eBook • Instant PDF access

View eBook

Need a different state?
Testinar has Grade 5 math practice books for state assessments across the country.

TESTINAR.COM/GRADES/5