Comparing and Ordering Decimals

Comparing and Ordering Decimals: Find, Fix, and Work Backward

Name _____ **Date** _____ **Score** _____ / 8

QUICK REVIEW

Compare the same places from left to right. Zeros on the right do not change a decimal: $0.6 = 0.600 > 0.594$, because 6 tenths exceed 5 tenths. To order several decimals, align their points and compare each place.

Worked example

Order $2.501, 2.51, 2.5$ from least to greatest using aligned place values.

1. Pad without changing value: $2.501, 2.510, 2.500$.

2. Thousandth counts in increasing order are $2500, 2501, 2510$, so $2.5 < 2.501 < 2.51$.

Answer: $2.5 < 2.501 < 2.51$.

Practice Problems

Show your thinking.

1. Without changing any nonzero digits, add zeros to 6.04 and 6.004 so both have three decimal places. Use the first differing place to compare them.

2. Choose the middle value among $0.91, 0.901, 0.919$ and show it lies between the others.

3. Order $7.05, 7.005, 7.5$ from least to greatest using aligned place values.

4. Lengths are $2.36, 2.306, 2.63$ m. Put the lengths in order, then find the gap between longest and shortest.

5. Find every digit a making $0.4a2 > 0.462$.

6. Give a three-place decimal strictly between 2.150 and 2.152.

7. Correct: $0.720 > 0.72$ because it has one more digit.

8. Find the greatest three-place decimal less than 1.

Answer Key

1. $6.040 > 6.004$.
2. $0.901 < 0.91 < 0.919$.
3. $7.005 < 7.05 < 7.5$.
4. $2.306 < 2.36 < 2.63$. Gap: 0.324 m.
5. $a = 7, 8, 9$.
6. 2.151.
7. $0.720 = 0.72$.
8. 0.999.

Step-by-Step Solutions

Follow each calculation, then check your own work.

Problem 1

1. Padding gives $6.04 = 6.040$ and leaves 6.004 unchanged.

2. The hundredths digits are 4 and 0; $40 > 4$ thousandths confirms the first is larger.

Problem 2

1. Pad without changing value: $0.910, 0.901, 0.919$.

2. Thousandth counts in increasing order are $901, 910, 919$, so $0.901 < 0.91 < 0.919$.

Problem 3

1. Pad without changing value: $7.050, 7.005, 7.500$.

2. Thousandth counts in increasing order are $7005, 7050, 7500$, so $7.005 < 7.05 < 7.5$.

Problem 4

1. Pad without changing value: $2.360, 2.306, 2.630$.

2. Thousandth counts in increasing order are $2306, 2360, 2630$, so $2.306 < 2.36 < 2.63$.

3. $2.63 - 2.306 = 0.324$ m.

Problem 5

1. Tenths are equal; the hundredths digit must exceed 6, since a tie gives equal thousandths.

2. The valid numbers are $0.472, 0.482, 0.492$, all greater than 0.462.

Problem 6

1. The endpoints are 2150 and 2152 thousandths.

2. $2150 < 2151 < 2152$, so $2.150 < 2.151 < 2.152$.

Problem 7

1. $0.720 = \frac{720}{1000} = \frac{72}{100}$.

2. Both decimals represent 72 hundredths, so their values are equal.

Problem 8

1. $1 = 1.000 = \frac{1000}{1000}$.

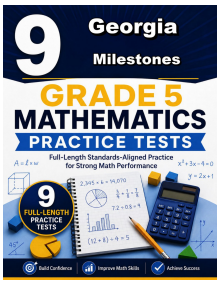
2. One thousandth less is $1 - 0.001 = 0.999$; no larger thousandth fits below 1.

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



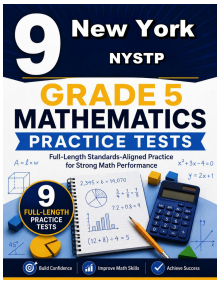
GEORGIA MILESTONES

9 Full-Length Math Practice Tests

Build Grade 5 accuracy, confidence, and test stamina with 9 printable practice tests.

Printable eBook • Instant PDF access

View eBook



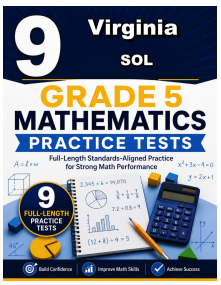
NEW YORK NYSTP

9 Full-Length Math Practice Tests

Build Grade 5 accuracy, confidence, and test stamina with 9 printable practice tests.

Printable eBook • Instant PDF access

View eBook



VIRGINIA SOL

9 Full-Length Math Practice Tests

Build Grade 5 accuracy, confidence, and test stamina with 9 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