Whole Numbers and Decimals

Unit 1 Test

Standards Grade 5 prerequisite, 6.NS.B.2, 6.NS.B.3, 6.NS.B.4a, 6.NS.B.4b, 6.NS.B.4c

Learning target I can apply the skills taught so far, show my reasoning, and check my answers.

Assessment 20 open-response questions. Questions 1–4 review Grade 5 prerequisites; the remaining 16 assess this unit. Review accounts for exactly 20% of questions and points.

Administration

0–5 minutes Distribute only the attached student assessment pages. Read directions and confirm students have pencils, rulers, and extra plotting paper when needed. Ask for calculations, models, labels, and explanations where requested.

5–45 minutes Students complete the unit test independently. Allow an extended block for model-heavy responses as needed. Follow the course policy of doing arithmetic by hand unless an established classroom accommodation applies.

Final minutes Collect responses and ask students to note one item they want to revisit. Use the next teaching session for corrections and focused reteaching.

Scoring and Feedback

5 points each, 100 total: 2 for setup or model, 2 for calculation or reasoning, 1 for units, interpretation, or the requested check.

Score prior-unit review separately from current-unit work. Accept equivalent exact answers and valid alternate methods. For drawings, use the coordinate, face, frequency, or summary information in the attached key to check the representation.

Suggested follow-up based on current-unit items: 80% or above, continue with brief corrections; 60–79%, provide targeted small-group support; below 60%, reteach with models. These are instructional suggestions, not state proficiency cut scores.

Likely misconceptions Watch decimal place alignment, quotient zero digits, and the difference between GCF and LCM.

Name _____ Date _____

Whole Numbers and Decimals

Unit 1 Test

Standards assessed Grade 5 prerequisite, 6.NS.B.2, 6.NS.B.3, 6.NS.B.4a, 6.NS.B.4b, 6.NS.B.4c

Questions 1–4 review Grade 5 prerequisites (20%). The remaining questions assess this unit. Show work, simplify exact answers, label units, and justify models or explanations. 5 points per question; 100 points total.

1. [Review] Use long division: 320 ÷ 4. Show the algorithm and check.

2. [Review] Use the standard algorithm: 86 + 4.6. Show your regrouping or division steps.

3. [Review] Use the standard algorithm: 93.4 - 2.7. Show your regrouping or division steps.

4. [Review] Calculate 2 × 1/2. Simplify.

5. [Current unit] Use long division: 375 ÷ 5. Show the algorithm and check.

6. [Current unit] Use long division: 714 ÷ 7. Show the algorithm and check.

7. [Current unit] Use the standard algorithm: 17 + 1.2. Show your regrouping or division steps.

Name _____ Date _____

Whole Numbers and Decimals

Unit 1 Test

Standards assessed Grade 5 prerequisite, 6.NS.B.2, 6.NS.B.3, 6.NS.B.4a, 6.NS.B.4b, 6.NS.B.4c

8. [Current unit] Use the standard algorithm: 8.05 - 3. Show your regrouping or division steps.

9. [Current unit] Use the standard algorithm: 7.62 × 1.3. Show your regrouping or division steps.

10. [Current unit] Use the standard algorithm: 6.86 × 5.8. Show your regrouping or division steps.

11. [Current unit] Use the standard algorithm: 10.32 ÷ 2.4. Show your regrouping or division steps.

12. [Current unit] Use the standard algorithm: 26.56 ÷ 3.2. Show your regrouping or division steps.

13. [Current unit] Find the GCF of 60 and 84. Show factor pairs or prime factors.

14. [Current unit] Two lights flash together now, then every 2 and 12 seconds. When do they next flash together? Explain.

Name _____ Date _____

Whole Numbers and Decimals

Unit 1 Test

Standards assessed Grade 5 prerequisite, 6.NS.B.2, 6.NS.B.3, 6.NS.B.4a, 6.NS.B.4b, 6.NS.B.4c

15. [Current unit] Factor 28 + 42 using its GCF. Make the inside numbers relatively prime.

16. [Current unit] Use long division: 4,964 ÷ 13. Show the algorithm and check.

17. [Current unit] Use long division: 8,301 ÷ 25. Show the algorithm and check.

18. [Current unit] A club has 1683 cards. Each full packet holds 16. How many full packets can it make, and how many cards remain?

19. [Current unit] A runner walks 5.56 km in the morning and 0.51 km later. What is the total distance?

20. [Current unit] A tank holds 4.04 L. A class uses 0.53 L. How much remains?

Unit 1 Test

Whole Numbers and Decimals

1. 80
Reasoning 32 ÷ 4: write 8, subtract 32, remainder 0; bring down the next digit: 0 ÷ 4: write 0, subtract 0, remainder 0. Check: 4 × 80 = 320.

2. 90.6
Reasoning Align decimal points; 86 + 4.6 = 90.6.

3. 90.7
Reasoning Align decimal points; 93.4 - 2.7 = 90.7.

4. 1
Reasoning 2 × 1/2 = 1.

5. 75
Reasoning 37 ÷ 5: write 7, subtract 35, remainder 2; bring down the next digit: 25 ÷ 5: write 5, subtract 25, remainder 0. Check: 5 × 75 = 375.

6. 102
Reasoning 7 ÷ 7: write 1, subtract 7, remainder 0; bring down the next digit: 1 ÷ 7: write 0, subtract 0, remainder 1; bring down the next digit: 14 ÷ 7: write 2, subtract 14, remainder 0. Check: 7 × 102 = 714.

7. 18.2
Reasoning Align decimal points; 17 + 1.2 = 18.2.

8. 5.05
Reasoning Align decimal points; 8.05 - 3 = 5.05.

9. 9.906
Reasoning Compute the whole-number product and restore decimal places: 7.62 × 1.3 = 9.906.

10. 39.788
Reasoning Compute the whole-number product and restore decimal places: 6.86 × 5.8 = 39.788.

11. 4.3
Reasoning Multiply both numbers by 10: 103.2 ÷ 24 = 4.3. Check: 2.4 × 4.3 = 10.32.

12. 8.3
Reasoning Multiply both numbers by 10: 265.6 ÷ 32 = 8.3. Check: 3.2 × 8.3 = 26.56.

13. 12
Reasoning Common factors: 1, 2, 3, 4, 6, 12; greatest is 12.

14. 12 seconds
Reasoning The first positive multiple shared by 2 and 12 is 12.

15. 14(2 + 3)
Reasoning GCF = 14; 28 = 14 × 2 and 42 = 14 × 3.

16. 381 R 11
Reasoning 49 ÷ 13: write 3, subtract 39, remainder 10; bring down the next digit: 106 ÷ 13: write 8, subtract 104, remainder 2; bring down the next digit: 24 ÷ 13: write 1, subtract 13, remainder 11. Check: 13 × 381 + 11 = 4964.

17. 332 R 1
Reasoning 83 ÷ 25: write 3, subtract 75, remainder 8; bring down the next digit: 80 ÷ 25: write 3, subtract 75, remainder 5; bring down the next digit: 51 ÷ 25: write 2, subtract 50, remainder 1. Check: 25 × 332 + 1 = 8301.

18. 105 full packets; 3 cards remain
Reasoning 1683 = 16 × 105 + 3.

19. 6.07 km
Reasoning Align decimal points; 5.56 + 0.51 = 6.07.

20. 3.51 L
Reasoning Align decimal points; 4.04 - 0.53 = 3.51.