Fraction Operations and Models

Quiz 1

Standards 6.NS.B.2, 6.NS.A.1

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

Assessment 5 open-response questions. Questions 1–1 review Unit 1; the remaining 4 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.

5–30 minutes Students complete the quiz independently. 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 remaining time for guided correction and explanation after collecting the initial responses.

Scoring and Feedback

4 points each, 20 total: 2 for method or model, 1 for an accurate result, 1 for requested units, explanation, or check. For a simple item, the final point rewards clear notation.

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 for taking the reciprocal of the dividend, confusing a partial group with a fraction of the whole, and rounding full-container counts upward.

Name _____ Date _____

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Standards assessed 6.NS.B.2, 6.NS.A.1

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

1. [Review] Use long division: 1,442 ÷ 7. Show the algorithm and check.

2. [Current unit] Calculate 3/2 × 3/4. Simplify.

3. [Current unit] Calculate 3 1/4 × 1 1/4. Simplify.

4. [Current unit] Draw a bar partitioned into 10 equal parts. Shade 7 parts. Circle groups of 3 parts. Use the model to find 7/10 ÷ 3/10. Explain the partial group.

5. [Current unit] Draw a bar partitioned into 4 equal parts. Shade 4 parts. Circle groups of 2 parts. Use the model to find 1 ÷ 1/2. Explain the partial group.

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1. 206
Reasoning 14 ÷ 7: write 2, subtract 14, remainder 0; bring down the next digit: 4 ÷ 7: write 0, subtract 0, remainder 4; bring down the next digit: 42 ÷ 7: write 6, subtract 42, remainder 0. Check: 7 × 206 = 1442.

2. 9/8
Reasoning 3/2 × 3/4 = 9/8.

3. 65/16
Reasoning 13/4 × 5/4 = 65/16.

4. 7/3
Reasoning Each small part is 1/10; 7 shaded parts divided into groups of 3 gives 7/3 = 7/3 groups.

5. 2
Reasoning Each small part is 1/4; 4 shaded parts divided into groups of 2 gives 4/2 = 2 groups.