Ratios and Measurement

Quiz 1

Standards 6.NS.A.1, 6.RP.A.1, 6.RP.A.3a

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 2; 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 the order of ratio labels, part-to-whole denominators, and scaling only one quantity.

Name _____ Date _____

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Standards assessed 6.NS.A.1, 6.RP.A.1, 6.RP.A.3a

Questions 1–1 review Unit 2 (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] Calculate 3 3/4 × 2 1/3. Simplify.

2. [Current unit] A tray has 12 red tiles and 10 blue tiles. Write the red-to-blue ratio in simplest form.

3. [Current unit] A collection has 30 green and 30 yellow counters. Write the fraction that is green.

4. [Current unit] The ratio of oak trees to pine trees is 7:3. There are 30 trees altogether. Draw a tape diagram and find each count and the difference between the counts.

5. [Current unit] A mix uses 2 cups of oats for 7 cups of seeds. Complete the table (oats, seeds): (2, 7), (4, ___), (12, ___) and explain how you know the last two rows are equivalent.

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1. 35/4
Reasoning 15/4 × 7/3 = 35/4.

2. 6:5
Reasoning Keep red first; divide 12:10 by 2.

3. 1/2
Reasoning Total = 60; green fraction = 30/60 = 1/2.

4. 21 oaks and 9 pines; difference 12
Reasoning 10 equal sections total; each section is 30 ÷ 10 = 3.

5. 14; 42
Reasoning Multiply both parts by 2 and by 6.