Rational Numbers and Coordinates

Quiz 1

Standards 6.RP.A.2, 6.RP.A.3b, 6.NS.C.5, 6.NS.C.6a, 6.NS.C.6c

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 4; 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 order versus absolute value, coordinate order, and which sign changes in a reflection.

Name _____ Date _____

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Quiz 1

Standards assessed 6.RP.A.2, 6.RP.A.3b, 6.NS.C.5, 6.NS.C.6a, 6.NS.C.6c

Questions 1–1 review Unit 4 (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] 2 identical notebooks cost $12. Find the cost per notebook.

2. [Current unit] A marker is 6 m below sea level. Write its signed elevation and explain what elevation 0 means.

3. [Current unit] Find the opposite of -8 and the opposite of that result. Locate all values on a number line.

4. [Current unit] Draw a horizontal or vertical number line. Plot and label -2, 0, and 7/4. Name the step size of your scale and explain the placement.

5. [Current unit] Draw a horizontal or vertical number line. Plot and label -4/5, 0, and 7/10. Name the step size of your scale and explain the placement.

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1. $6 per notebook
Reasoning Unit rate = 12 ÷ 2 = 6 dollars per notebook.

2. -6 m; 0 means at sea level
Reasoning Sea level is the reference. Below is negative and above is positive.

3. 8; opposite again -8
Reasoning -8 and 8 are each 8 units from 0 on opposite sides.

4. -2 < 0 < 7/4; use steps of 1/4
Reasoning Negative -2 is left of or below 0; 7/4 is right of or above 0. Use equal intervals.

5. -4/5 < 0 < 7/10; use steps of 1/10
Reasoning Negative -4/5 is left of or below 0; 7/10 is right of or above 0. Use equal intervals.