Equations Inequalities and Relationships

Quiz 2

Standards 6.EE.A.2c, 6.EE.B.7, 6.EE.B.6, 6.EE.B.8, 6.EE.B.5

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 6; 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 inverse operations, equality on both sides, open versus closed endpoints, and input/output order.

Name _____ Date _____

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Standards assessed 6.EE.A.2c, 6.EE.B.7, 6.EE.B.6, 6.EE.B.8, 6.EE.B.5

Questions 1–1 review Unit 6 (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] Evaluate $8x + 6$ for $x = 2$.

2. [Current unit] Solve $x \div 5 = 1/5$. Check in the original equation.

3. [Current unit] 6 identical lengths of rope total 42 m. Let x be the length of one piece. Write and solve an equation, then check.

4. [Current unit] Let x be any real number. Write and graph: x is at most 28. Give one included value and explain whether the endpoint is included.

5. [Current unit] Which values in {9, 10, 11} satisfy $x \leq 10$? Does the real-number inequality have only these solutions? Explain.

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Equations Inequalities and Relationships

1. 22
Reasoning Substitute first: 8 × 2 + 6 = 22.

2. x = 1
Reasoning Multiply by 5 on both sides. Then x = 1; substitution gives 1/5 on each side.

3. 6x = 42; x = 7 m
Reasoning Divide the total by 6: 42 ÷ 6 = 7.

4. x ≤ 28; closed circle at 28, shade left
Reasoning “at most” means ≤; include the endpoint. Example solution: 27.

5. 9, 10; no, infinitely many real values satisfy it
Reasoning Values below 10 work; the endpoint works too.