

CHAPTER 4 Cumulative Review

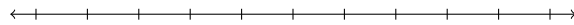
Name _____

Date _____

Mix skills carefully. Show work, graph when requested, and explain your conclusions.

1. Solve and check $x + \frac{5}{8} = -\frac{7}{12}$.

2. Solve and graph $-3x + 8 \geq -13$.



3. A student claims $x < -2$ and $-2 < x$ are identical. Use a value to explain the difference, and describe each graph.

4. Solve and check $-\frac{7}{10}x = \frac{21}{5}$.

5. A club has \$27 and earns \$5.50 per snack bundle. It needs at least \$85. Write and solve an inequality; verify the least whole-number count.

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6. Solve and check $\frac{x}{-6} - \frac{5}{4} = \frac{7}{4}$.

7. Is $x = -\frac{3}{2}$ a solution of $-4x + 1 \leq 7$? Show substitution and explain why checking one value does not identify the whole solution set.

8. Solve and graph $x - \frac{7}{8} > -\frac{1}{2}$.



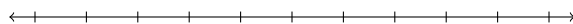
9. A rectangle has width 11 centimeters and perimeter 58 centimeters. Write and solve an equation for its length and check.

10. Solve and graph $-\frac{3}{5}x \leq 9$.



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11. Solve and graph $-2(x - 5) > 14$.



12. A student changes $4(x - 3) = -20$ to $4x - 3 = -20$. Correct the error, solve, and check the original equation.

13. A shelf has 26 inches of usable width. Each binder is $1\frac{1}{2}$ inches wide. Write and solve an inequality. Find the maximum number of whole binders and verify.

14. Create an equation and a two-step inequality that both have boundary value -6 . Explain how their solution sets differ.
