

NAME _____

DATE _____

Module Test B Module 5

Solve and graph.

1. $\frac{x}{4} < -2$ _____



2. $x - 6 \geq -4$ _____



3. $2x \geq 6$ _____



4. $0 \geq x - 4$ _____



5. $-2x - 4 \geq 6$ _____



6. $13 > \frac{2}{3}x + 15$ _____



7. $6 - 8x \geq 22$ _____



8. $-4x - 3 > -3$ _____



9. $4x - 2 > 3x$ _____



10. $6x - 5 \geq 3x + 13$ _____



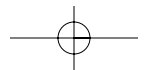
11. $-4(x - 2) > 5(3 - x)$ _____



12. $-2(x - 1) + 4 < 3 - (x - 4)$ _____



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13. $x > 5$ and $x > 7$ _____



14. $x < 0$ or $x > 0$ _____



15. $-2x > -4$ and $3x \geq 9$ _____



16. $5x - 2 < 8$ or $-x - 1 < -2$ _____



17. $\frac{3}{4}x - 1 \geq 5$ and $6 - \frac{1}{2}x \leq 1$ _____



18. $-12 \leq -4x - 4 \leq 20$ _____



Write an inequality and solve it to answer each problem.

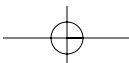
19. Oscar is going to join a gym. Big Muscles charges a \$75 initiation fee, plus a monthly fee of \$40. Buff Bodies charges a \$150 initiation fee, plus a \$25 monthly fee. For how many months must Oscar belong to Buff Bodies for it to be the less expensive choice?

20. The sum of three consecutive integers is at least 80. What is the least trio of integers for which this is true?

21. Consider the conjunction $0 < 8 - 4x \leq 16$.

a. What two inequalities are shown by the conjunction?

b. Solve each inequality from part a, showing all steps.



c. Solve the conjunction $0 < 8 - 4x \leq 16$ by using inverse operations on all three parts.

d. Explain why the solutions you found in parts b and c are equivalent. Use a graph to support your answer.

