

NAME _____

DATE _____

Module 5 Solving Linear Inequalities of One Variable
Lesson 6 Solving Disjunction Inequalities

independent practice

Solve and graph.

1. $x < 2$ or $x < -4$ _____



2. $x > 3$ or $x < 5$ _____



3. $x \geq 5$ or $x > 0$ _____



4. $x \leq 3$ or $x \geq 7$ _____



5. $x \geq 5$ or $x \leq 2$ _____



6. $x < 4$ or $x \geq -5$ _____



7. $x \geq 3$ or $x < -3$ _____



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



9. $x > -2$ or $x < 7$ _____



10. $x < 3$ or $x \leq -2$ _____



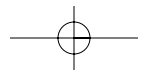
11. $x - 2 < 2$ or $x - 5 > 0$ _____



12. $x < \pi$ or $-x + 5 > 2$ _____



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13. $4x < -8$ or $-3x < 6$ _____



14. $\frac{1}{4}x \leq 2$ or $5x < 15$ _____



15. $5x + 12 \leq -13$ or $2x - 1 \geq 1$ _____



16. $5 - 6x \geq 23$ or $8x - 15 \geq 9$ _____



17. $7x - 5 \geq 30$ or $-2x - 6 \geq -2$ _____



18. $14x^2 < 7x^3$ or $3x < -9$ _____



19. $\frac{2}{3}x - 5 \leq -3$ or $3 - \frac{1}{2}x < 3$



20. $50 - 22x > -16$ or $-3x \geq 6$



Journal

1. Compare and contrast conjunctions and disjunctions. How are they alike? How are they different?
2. Do the symbols " \leq " and " \geq " represent conjunctions or disjunctions? Explain.
3. Is the disjunction $4 > 7$ or $2 < 5$ true? Explain.
4. What is the solution to the disjunction $x < a$ or $x < b$, where $a < b$? Use a number line to help explain your answer.
5. What is the solution to the disjunction $x > a$ or $x > b$, where $a < b$? Use a number line to help explain your answer.

Cumulative Review

Simplify.

1. $|-2|$ _____
2. $|-y^2|$ _____
3. $|-5.5|$ _____
4. $\frac{(\sqrt{-2})^3}{2}$ _____
5. $|6 - 10|$ _____
6. $|3(-2) + 5| \cdot -5 + 6$ _____

Write an equation and solve.

7. Twelve is equal to four less than twice a number, x .
Equation: _____
Solution: _____
8. The sum of eight and a number, n , is twenty-four.
Equation: _____
Solution: _____
9. Forty decreased by the sum of half a number, x , and twenty is 10.
Equation: _____
Solution: _____
10. Two less than a number, x , is the same as the difference of six and three times the number.
Equation: _____
Solution: _____

