

Name _____

Inequality Word Problems

Date _____

Algebra

1. Five times a number increased by 8 is less than 63. Find the greatest possible integer value for the number.
2. The length of a rectangle is 7 cm more than its width. The perimeter is at least 38 cm. Find the minimum measures of the length and width.
3. A club agreed to purchase at least 250 tickets to a show. If it agreed to buy 80 less orchestra tickets than balcony tickets, what was the least number of balcony tickets it could buy?
4. Six more than 4 times a whole number is less than 60. Find the maximum value of the number.
5. The length of a rectangle is 10 cm less than 3 times its width. If the perimeter of the rectangle is at most 180 cm, find the greatest possible length of the rectangle.
6. Two consecutive even numbers are such that their sum is greater than 98 decreased by twice the larger. Find the smallest possible values for the integers.

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Review: Writing and Solving Inequalities

Algebra

Solve each problem algebraically.

1. Three times a number increased by 8 is at most 40 more than the number.
Find the number.
2. The length of a rectangle is 10 centimeters less than 3 times its width. If the perimeter of the rectangle is at most 180 centimeters, find the greatest possible length of the rectangle.
3. The members of a club agree to buy at least 250 tickets for a basketball game. If they expect to buy 80 fewer court-side tickets than balcony tickets, what is the least number of balcony tickets they will buy?
4. Kevin needs \$31 to buy some compact discs. His father agreed to pay him \$6 an hour for gardening in addition to his \$5 weekly allowance for helping around the house. What is the minimum number of whole hours Kevin must work at gardening to earn \$29 this week?
5. A movie theater charges \$7 for an adult ticket and \$4 for a child's ticket. On a recent night, the sale of children's tickets was 3 times the sales of adult tickets. If the total amount collected for ticket sales was not more than \$2000, what is the greatest number of adults who could have seen the movie?