

Name:

Date:

Period:

- Make sure you determine whether the problem should be set up as an **INEQUALITY** or an **EQUATION**.
  - Once you SOLVE, you must INTERPRET your answer and write the APPROPRIATE answer in statement form.
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Please show all your work on a separate sheet of paper.

1. If eight times a number is decreased by 23, the result is 129. Find the number.
2. One number is 8 more than another. If the smaller number is multiplied by 3, the result is 18 more than the larger number. Find the numbers.
3. Three more than five times a number is less than 18. Find the largest integer for which this is true.
4. Two less than seven times a number is less than 12. Find the largest integer for which this is true.
5. If 14 is added to a certain number and the sum is doubled, the result is the same as decreasing eight times the number by 14. Find the number.
6. The sum of three numbers is 12. If the second is 1 less than the first and the third is 5 less than twice the second, find the numbers.
7. Find three consecutive integers such that the sum of the first two exceeds the third by 24.
8. Let  $x$  represent the larger of two integers whose sum is less than 40. The smaller integer is one-fourth of the larger. Find the largest possible value of  $x$ .
9. The sum of three consecutive odd integers is less than 30. If  $x$  represents the first of these integers, what is the largest possible value of  $x$ ?
10. The sum of four consecutive even integers is at least 252. Find the smallest possible values for these numbers.