

Name:

Date:

Period:

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- After you write your "Let" statements, figure out what inequality sign you will use based on the wording in the problem, then figure out what to write on each side of the inequality sign.
 - If it is a compound inequality, figure out your "boundaries" first, then decide what goes in between (is it just "x" or is it an expression involving more than "x"?)
 - Once you SOLVE your inequality, 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. Let x represent the smaller of two integers whose sum is greater than 40. The larger integer is seven times the smaller. Find the smallest possible value of x .
2. Let x represent the larger of two integers whose sum is less than 30. The smaller integer is one-half of the larger. Find the largest possible value of x .
3. The sum of two consecutive integers is greater than 29. If x represents the first of these integers, what is the smallest possible value of x ?
4. The sum of two consecutive even integers is greater than 18. If x represents the first of these integers, what is the smallest possible value of x ?
5. The sum of two consecutive even integers is less than 10. If x represents the first of these integers, what is the largest possible value of x ?
6. The sum of three consecutive odd integers is less than 15. If x represents the first of these integers, what is the largest possible value of x ?
7. The sum of three consecutive integers is less than 39. Find the largest possible values for these numbers.
8. The sum of four consecutive integers is at least 114. Find the smallest possible values for these numbers.
9. The sum of 3 times a number and 4 is between -8 and 10. Write a compound inequality to model this problem and solve.
10. The product of -5 and a number is greater than 35 or less than 10. Write a compound inequality to model this problem and solve.