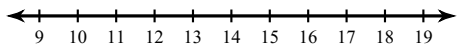




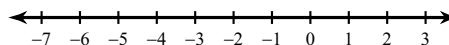
- 6) Ryan is a wrestler trying to make weight. He currently weighs 200 lbs. If he cuts 2 lbs. per week, how many weeks will it take him to weigh less than 175 lbs.?
- 7) Tom is deciding whether or not he should become a member gym to use their basketball courts. The membership cost is \$135. Members pay \$2 to rent out the basketball courts. Non-members can rent the court also, but they have to pay \$11 each time. how many times would Tom need to rent the court in order for it be cheaper to be a member than a non member?

**Solve each inequality and graph its solution.**

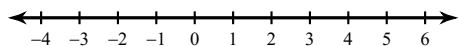
8)  $24 + 6k < -6(-4 - k)$



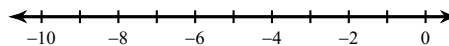
9)  $-2n - 40 < 5(6 + n) + 7n$



10)  $-4(4 + 7x) + x \geq -6x + 5$



11)  $-7(4 - x) + 4 \geq -18 + 7x$



Represent each of the following as an algebraic inequality.

12) x is at most 30 \_\_\_\_\_

13) the sum of  $5x$  and  $2x$  is at least 14 \_\_\_\_\_

14) the product of  $x$  and  $y$  is less than or equal to 4 \_\_\_\_\_

15) 5 less than a number  $y$  is under 20 \_\_\_\_\_

16) If 5 times a number is increased by 4, the result is at least 19. Find the least possible number that satisfies these conditions.

17) The sum of twice a number and 5 is at most 15. What are the possible values for the number?

18) Three times a number increased by 8 is no more than the number decreased by 4. Find the number.

19) Two-thirds of a number plus 5 is greater than 12. Find the number.

20) The sum of a number and 81 is greater than the product of  $-3$  and that number. What are the possible values for the number?