

Simplify all answers and show your work!

Solve for x:

1)  $x + 5 = 18$

2)  $-3x = 24$

3)  $-8 + x = 12$

4)  $5x = 22$

5)  $x - 2.2 = 7.8$

6)  $3x - 7 = 5$

7)  $\frac{x}{4} + 2 = 5$

8)  $\frac{2}{3}x = 12$

9)  $3(x - 2) = 9(x + 2)$

10)  $(x - 9) - (x + 4) = 4x$

11)  $2(x + 7) = 8x$

12) Solve for y:  $2x + y = 14$

13) Solve for y:  $4x - 3y = 17$

14) 20% of what is 6?

15) What percent of 60 is 75?

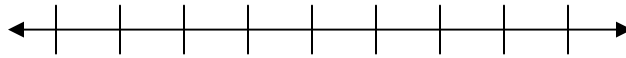
16) Josie left a 15% tip on a meal that cost \$20. How much was the tip?

17) The sum of two consecutive integers is -311. Find the larger integer.

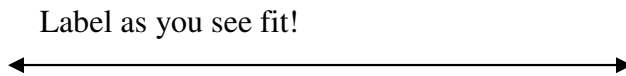
18) Find the length of a rectangular lot with a perimeter of 94 meters if the length is 5 meters more than the width. ( $P = 2L + 2W$ )

19) A high school graduating class is made up of 387 students. There are 85 **more** girls than boys. How many boys are in the class?

20) Solve the inequality and graph the solution on a number line:  $x + 12 < 18$



21) Solve the inequality and graph the solution on a number line:  $-5x < \frac{1}{5}$



22) Solve the inequality only:  $3x - 4 \geq 5x + 18$   
(Do not graph it. ☺)

23) Translate into an inequality:  
Diana is at least 21 years old.

24) Jim has gotten scores of 71 and 94 on his first two tests. What range of scores must he get on his third test to keep an average of 75 **or greater**?