

Distributing, Simplifying, and Solving Review**Show all steps!** Simplify completely.

1) $-5(6-x)$

2) $2-5(6-x)$

3) $11-1(5x-3)$

4) $21-(3x+8)$

5) $-2(x-y)+3(2x-7y)$

6) $-(x-7+2y)+4(x+2)$

7) $-(a-b)-(b+a)$

8) $3(5x-7)-2(x-8)$

9) $7(x+3)-(x-9)$

10) $\frac{1}{4}(12x+20)-\frac{1}{5}(30-15x)$

11) $-(2x-8y+3z)+2(3x+4y-z)-4(6x-2y+10z)$

12) $2(x+3y)-3(9x+2)-\frac{1}{2}(20-4x+8y)$

For problems 13-19, pretend you are working on a problem and you get to a point in your work where you have what is given below. What will be the final answer to the problem? (NOTE: For some problems, you will need to do more work. For others, you will need to decide on the right “special case” answer.) BE CAREFUL!!!

13) $5 = 8$

14) $-3 = -3$

15) $5x + 3 = 5x - 17$

16) $5x + 3 = 7x + 3$

17) $2x = 2x$

18) $4x - 11 = 4x$

19) $x = x$

Solve for x in each of the following problems:

20) $4x = 32 + 4x$

21) $2x + 8 = 7x + 8$

22) $4x - 2(1 - x) = 2(3x - 2)$

23) $4(x + 1) = 6 - 2(1 - 2x)$

24) $2(5 - x) + 6x = x + 22$

25) $6(x + 4) - (x + 3) = x - 1$