

Homework: Distributive Property

Simplify by distributing and collecting like terms. Show your work. The 1st one is done for you.

1. $3(4x + 6) + 7x =$

$12x + 18 + 7x = 19x + 18$

2. $7(2 + 3x) + 8 =$

11. $6m + 3(2m + 5) + 7 =$

12. $5(m + 9) - 4 + 8m =$

3. $9 + 5(4x + 4) =$

13. $3m + 2(5 + m) + 5m =$

4. $12 + 3(x + 8) =$

14. $6m + 14 + 3(3m + 7) =$

5. $3(7x + 2) + 8x =$

15. $4(2m + 6) + 3(3 + 5m) =$

6. $3(4x^2y^3 + 2x^2) + 4(2x^2 + 3x^2y^3) =$

16. $2(1x^3y + 5x^2 + 3xy) + 3(4xy + 2x^2 + 5x^3y) =$

Simplify the expression first. Then evaluate the resulting expression for the given value of the variable.

7. $3x + 5(2x + 6) =$ _____ if $x = 4$

$3x + 10x + 30 =$

$13x + 30 =$

$13(4) + 30 =$ **82**

17. $9(2m + 1) + 2(5m + 3) =$ _____ if $m = 2$

8. $4 + 6(2x + 7) =$ _____ if $x = 3$

18. $7(7 + 5m) + 4(m + 6) =$ _____ if $m = 1$

9. $8 + 5(9 + 4x) =$ _____ if $x = 2$

19. $2(4m + 5) + 8(3m + 1) =$ _____ if $m = 3$

10. $6(4x + 7) + x =$ _____ if $x = 2$

20. $5(8 + m) + 2(7m - 7) =$ _____ if $m = 3$