



# HOMEWORK

## Homework Problems

Circle the homework problems assigned to you by the computer, then complete them below.



### Explain

### Simplifying Expressions

- What are the constants in the expression  $11 + 4y - 6 + 2x - 1$ ?
- Simplify the expression  $2x - 5 + 4y + 3x - 7y + 4$ .
- Evaluate the expression  $4x - 7$  when  $x = -3$ .
- What are the terms in the expression  $3xy - 5x + 8 - y - x^2y$ ?
- Simplify the expression  $5 + 3(x - 1)$ .
- Evaluate the expression  $2x + 3y + 5$  when  $x = 2$  and  $y = 1$ .
- Simplify the expression  $3(y - 4) + 4y(x + 2) + 5$ .
- Evaluate the expression  $3xy - 2x + 1 - y$  when  $x = -1$  and  $y = 2$ .
- Melissa bought 3 gallons of white paint for \$11.00 per gallon, 2 quarts of blue paint for \$7.00 per quart, and 1 brush for \$6.00. How much did she spend all together?  
  
Hint: The amount she spent can be expressed as:  
 $3(11) + 2(7) + 1(6)$
- Mr. Burton is in charge of the cookie sale for his daughter's Girl Scout troop. When the girls turned in their money, he collected 6 twenty-dollar bills, 8 ten-dollar bills, 17 five-dollar bills, and 25 one-dollar bills. How much money did he collect all together?  
  
Hint: The amount of money he collected can be expressed as:  
 $6(20) + 8(10) + 17(5) + 25(1)$
- Simplify the expression  $7(2 - x) - 8 - 2(y - 3x) + 4y$ .
- Evaluate the expression  $xy^2 - 4y + 2 - 3x$  when  $x = 3$  and  $y = -2$ .



## Practice Problems

Here are some additional practice problems for you to try.

### Simplifying Expressions

1. What are the terms in the expression  $6x^3 + 5xy^2 - y + 25$ ?
2. What are the terms in the expression  $3a^3 - 2a^2b + 7b^2 - 6$ ?
3. Simplify:  $2(3y + 7) - 10$
4. Simplify:  $8 - 4(a + 3)$
5. Simplify:  $3 - 5(x - 7)$
6. Simplify:  $7b + 10 + 3b - 17$
7. Simplify:  $-4x - 15 + 9x - 12$
8. Simplify:  $6a - 13 - 5a + 15$
9. Simplify:  $2(y - 3) + 5(y + 4)$
10. Simplify:  $5a(b - 7) - 2(3a + 4)$
11. Simplify:  $4(x + 5) - 3x(y + 3)$
12. Simplify:  $7(b^2 + 2b) - 3(b - 5)$
13. Simplify:  $12(x - 3) - 7(2x^2 + 6x)$
14. Simplify:  $11(a + 1) + 8(a^2 - 3a)$
15. Simplify:  $10(y + 7) - 12 + 3(y^2 + 2y)$
16. Simplify:  $15(2 - b) + 32 - 9(3b - b^2)$
17. Simplify:  $15(x - 2) + 24 - 10(3x - x^2)$
18. Simplify:  $4b(a + 5) - 7a - 2(3ab - b^2)$
19. Simplify:  $7m(n - 6) + 10m + 3(n^2 - 8mn)$
20. Simplify:  $5x(6 - y) + 5x + 4(y^2 - 2xy)$
21. Evaluate  $7a - 3b + 9$  when  $a = -3$  and  $b = -4$ .
22. Evaluate  $8m + n - 17$  when  $m = 5$  and  $n = -1$ .
23. Evaluate  $3x + 4y - 5$  when  $x = 6$  and  $y = -2$ .
24. Evaluate  $3a^2 - 7a - 6b$  when  $a = -3$  and  $b = 11$ .
25. Evaluate  $10m + 2n - 8n^2$  when  $m = 5$  and  $n = -4$ .
26. Evaluate  $2x^2 - x - 2y$  when  $x = 5$  and  $y = 10$ .
27. Evaluate  $3x^3 - 6xy - 5xz + 4z - 1$  when  $x = 2$ ,  $y = -4$ , and  $z = 7$ .
28. Evaluate  $2a^3 - 7ab + 3ac - 10c + 8$  when  $a = -2$ ,  $b = 3$ , and  $c = 5$ .

## Practice Test

Take this practice test to be sure that you are prepared for the final quiz in Evaluate.

1. What are the coefficients in the expression  $2x^2y - y + 7xy - 4y^3 + 12$ ?
2. Simplify the following expression by using the distributive property and combining like terms:  $7(x + 3) + 2(9 - x)$ .
3. Simplify the following expression by using the distributive property and combining like terms:  
 $y(3 - y) + 5(x + y^2) - x(2 - 7y)$ .
4. Evaluate the expression  $2x^3 - 4x^2 + 7x - 6$  when  $x = 2$ .
5. Evaluate the expression  $5x + 2xy - 5y^2$  when  $x = 3$  and  $y = -2$ .
6. Simplify the following expression by using the distributive property and combining like terms:  
 $y(6 + y) - 5(y^2 - 1) + 2$ .
7. Evaluate the expression  $4x^2y + y - 5xy^2 - 15$  when  $x = 5$  and  $y = 3$ .
8. Simplify the following expression by using the distributive property and combining like terms:  
 $x^2(3 + y) - 2(5x - x^2) + 6x^2y$ .