

PROBLEM SET 1-2
(Algebraic Expressions)

Evaluate each expression for the given values of the variables.

1. $4a + 7b + 3a - 2b + 2a$ $a = -5$ $b = 3$

2. $5y - 3z + 4y - 1z - 3y$ $y = 3$ $z = -2$

3. $12a^2 - 3ab + 2b$ $a = -5$ $b = 4$

4. $-k^2 - (3k - 5n) + 4n$ $k = -1$ $n = -2$

Simplify by combining like terms

5. $6r + 3s + 2s + 4r$

6. $x^2 + x^2 + x$

7. $0.5x - x$

8. $2(5y - 2) + x$

9. $7b - (3a - 8b)$

10. $-(3x - 4y + z)$

11. $-(2x + y) - 2(-x - y)$

12. $x(3 - y) + y(x + 6)$

13. $4(2x + y) - (2x + y)$

14. $x + \frac{x^2}{2} + 2x^2 - x$

15. $\frac{y^y}{4} + \frac{y}{3} + \frac{y^2}{3} - \frac{y}{5}$

16. $\frac{1}{2}(x^2 - y^2) - \frac{5}{2}(x^2 - y^2)$