

Problem 1. Evaluate $3a - 4ab^2 - 6(10 + b) - a^2$ for $a = 3$ and $b = -2$.

Problem 2. Simplify the expression

$$\frac{(-2g^3)^2}{16g^2(g^5)}$$

Problem 3. Simplify the radical

$$\sqrt{12b^3c^2d^{11}}$$

Problem 4. Simplify the polynomial

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

Problem 5. Factor the polynomial **completely**

$$4x^5 - 3x^3 - 4x^2 + 4$$

Problem 6. Simplify the rational expression

$$\frac{1}{x^2 - 4x + 3} - \frac{3}{x^2 - 9}$$

Problem 7. Solve the equation

$$\frac{2}{5x - 1} = \frac{6}{2x - 3}$$