Sample Questions for Math 102-Intermediate Algebra

Answers are not given for these problems. If you feel comfortable about your solutions, then you probably have a reasonable chance of success in Math 102-Intermediate Algebra.

1. Evaluate the following expression for \( x = -2 \) and \( y = 3 \): \( 5xy - 3x^2 \)

2. Solve for \( x \): \( 3x - 4 = -10 \)

3. Solve for \( y \): \( 3(8y - 10) = 6(3 + 2y) \)

4. Simplify: \( \left( \frac{2x^3y^2}{6xy^5} \right)^2 \)

5. Simplify: \( x^2(2x + 3) + 2x(3x^2 + 5x) \)

6. Multiply and simplify: \( (2x + 3)(x^2 - 4x + 7) \)

7. Factor: \( x^2 - 2x - 35 \)

8. Factor: \( 3x^2 + 5x - 12 \)

9. Find the \( x \)-intercept and \( y \)-intercept for the graph of \( 4x - 3y = 6 \)