

Simplify all answers and show your work!

1. Solve for x: $4x^2 - 5x - 6 = 0$

2. Solve for x: $3x^2 - 5x + 1 = 0$

3. Solve for x: $\frac{7}{x-4} = \frac{1}{x^2-4x} - \frac{5}{x}$

4. Solve for x: $\frac{3}{x} + \frac{7}{3x} = 1$

5. Simplify: $(27)^{\frac{2}{3}}$

6. Simplify: $\sqrt[4]{81p^{16}}$

7. Simplify: $\frac{x^{\frac{1}{3}}y^{\frac{6}{5}}}{x^{\frac{1}{2}}y^{\frac{1}{5}}}$

8. Simplify: $(3 + 4i)(2 - 5i)$

9. Simplify: $(3 + 5i) - (4 + 2i) - (8 - 3i)$

10. Solve for x: $x^2 - 10x + 25 = 0$