1. Fully simplify \( \frac{4(2x + h - 5)^{-1} - 4(2x - 5)^{-1}}{(x + h) - x} \).

2. In calculus, if \( y = \frac{x^2}{5(x-3)^{2/5}} \), then \( y' = \frac{5(x-3) \left( 2x - x^2 \left( \frac{3}{5} \right) \right) (x-3)^{2/5}}{\left( 5(x-3)^{2/5} \right)^2} \). Fully simplify \( y' \).
3. Fully simplify \[ \frac{1}{2} \left( \frac{5x^2}{3x} \right) \cdot (x - 2) \] and state all of the restrictions on \( x \).

4. If \( z = -7 + 2i \), what is the product of 3, the real part, and the imaginary part?

5. Fully simplify \[ \frac{x - 1}{x^2 - \frac{3}{6x}} \] and state all of the restrictions on \( x \).
6. Fully simplify and put in standard form: \((3i - 7)(i^2 + 8i)\)

7. Fully simplify \(10 - 2\sqrt{-81}\).

8. Show the absolute value of the sum \(8 + 9i\) and \(1 - 5i\) is less than or equal to the sum of their absolute values.
9. Solve for $x$, by completing the square: $2x^2 - 1 = 3x$.

10. Solve $6x^2 + 67x - 60 = 0$ for $x$. 
11. Solve \( \frac{2}{x^3} - \frac{1}{2x^3} = 15 \) for \( x \).

12. Solve \( \frac{x}{x-5} + \frac{2}{x+2} = \frac{35x}{x^3 - 3x^2 - 10x} \) for \( x \).

13. Solve \( 3x^2 + 2x = -5 \) for \( x \).