Quiz 1

1. (5 points). Solve the equation $(1 - z) + 6(1 - z)^{-1} = 5$ for z.

2. (5 points). Simplify $\frac{x^2 - x - 3}{x+3} + \frac{3x}{x-3} - \frac{18x}{x^2-9}$. For which x is this defined?

3. (5 points). At which points (x, y) do the lines $5x - 2y = 6$ and $3x + y = 8$ intersect?