

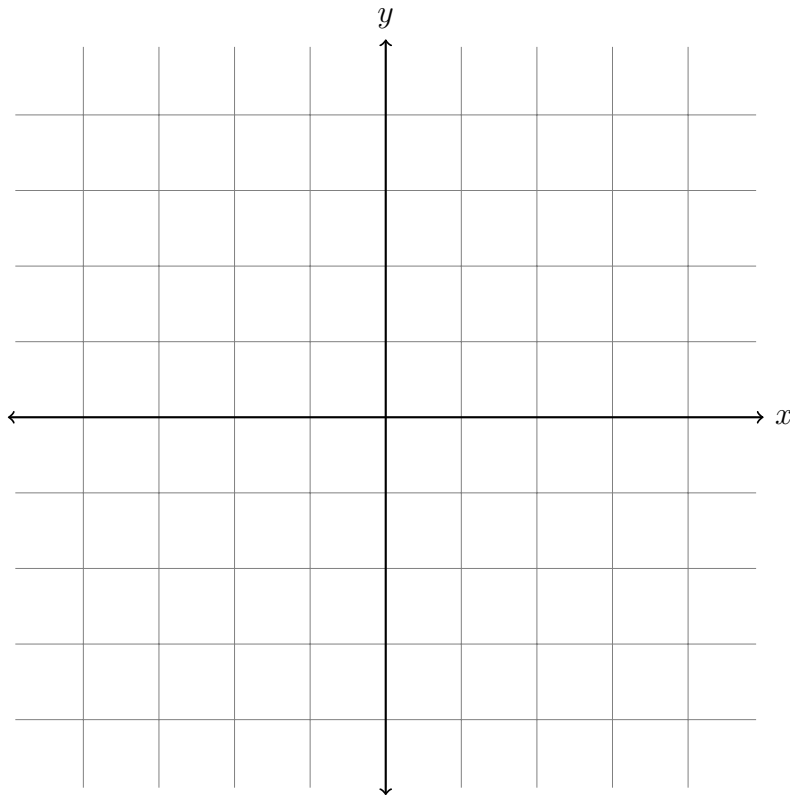
Question 1. Simplify the following fraction.

$$\frac{x^2 - 2x - 8}{x^2 + 2x - 24}$$

Question 2. Simplify the following expression using only positive exponents. Note that b is a positive real number.

$$\left(\frac{25b^{-2}}{3^{-2/3}} \right)^{3/2}$$

Question 3. Find the equation of the line perpendicular to $4y = 6x + 2$ that passes through the point $(3, 1)$, then plot the line.



Question 4. Find the domain of the following function, expressing your answer as a plot on a number line or in interval notation.

$$g(x) = \frac{\sqrt{x-2}}{x^2-9}$$