

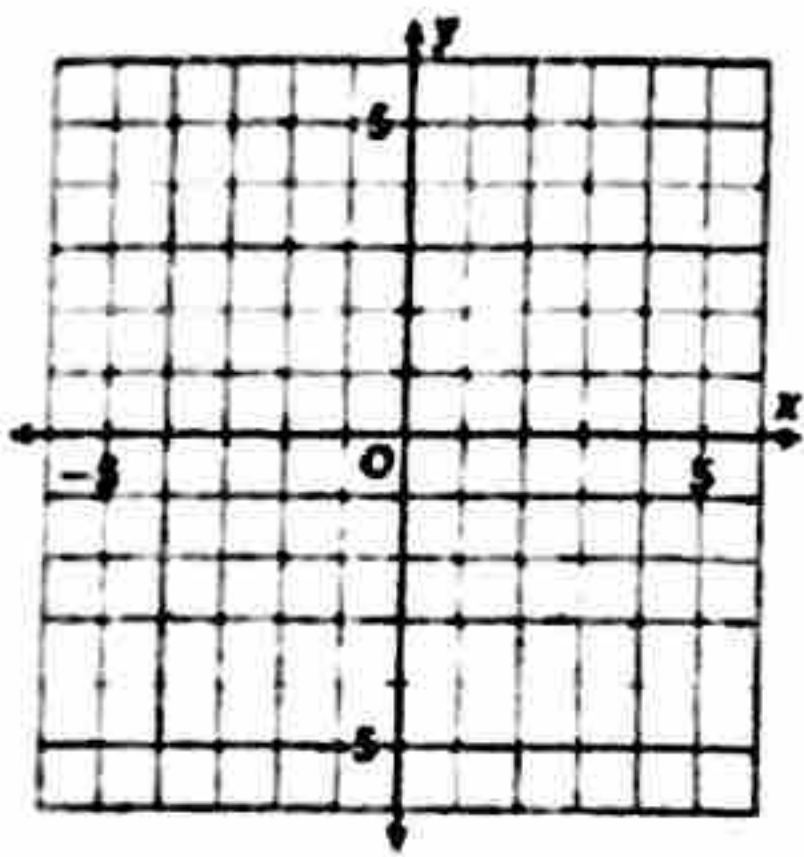
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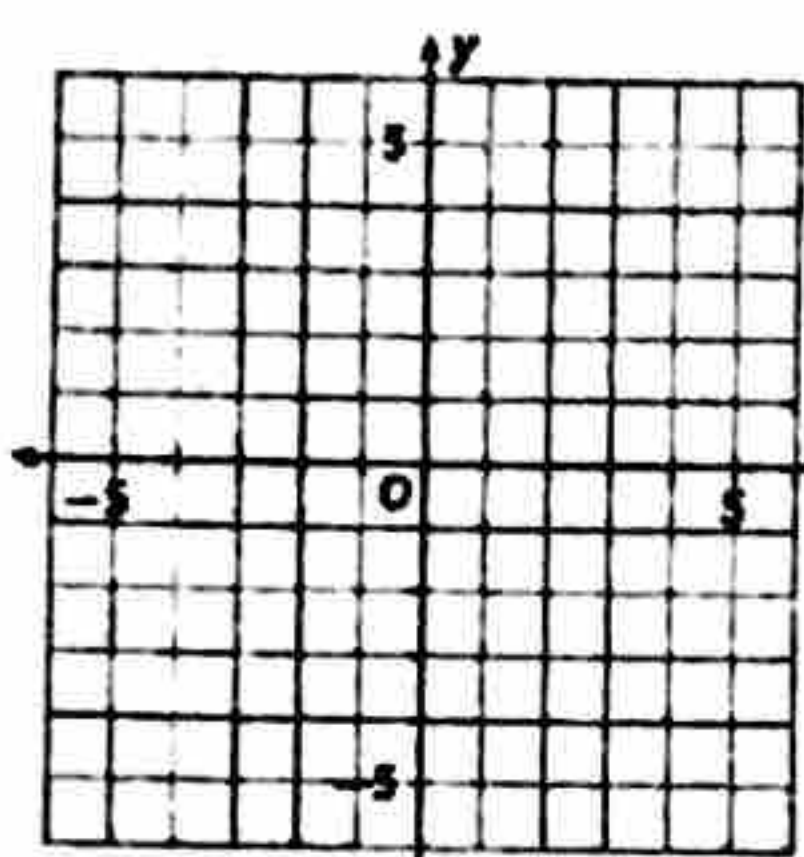
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Systems Quiz Review

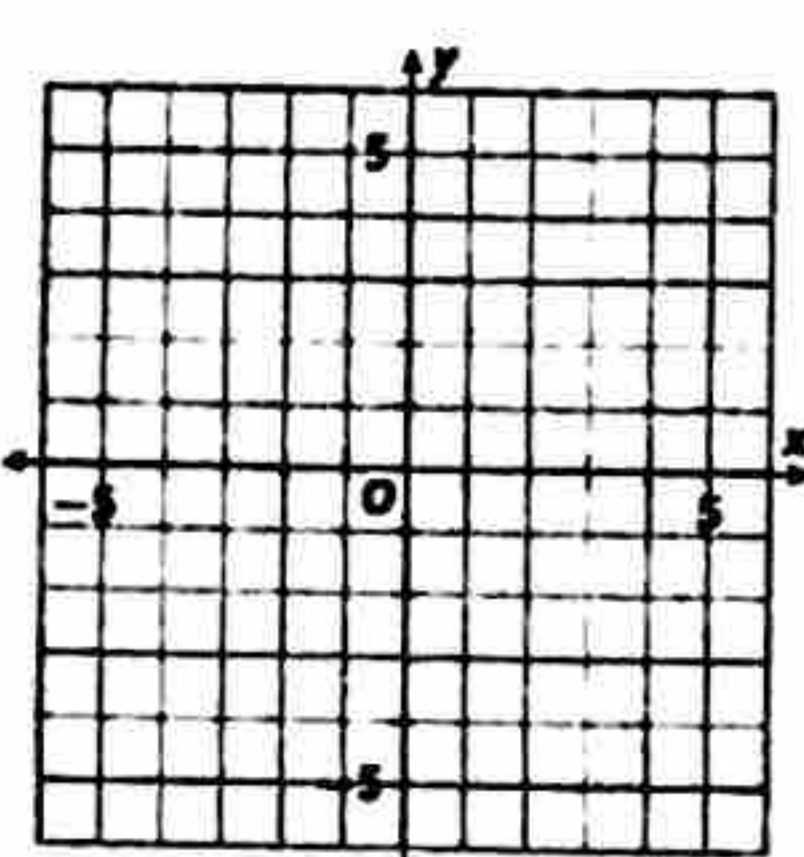
1. On the graphs below sketch a graphical representation of the possible solutions to a systems a linear equations.



One solution



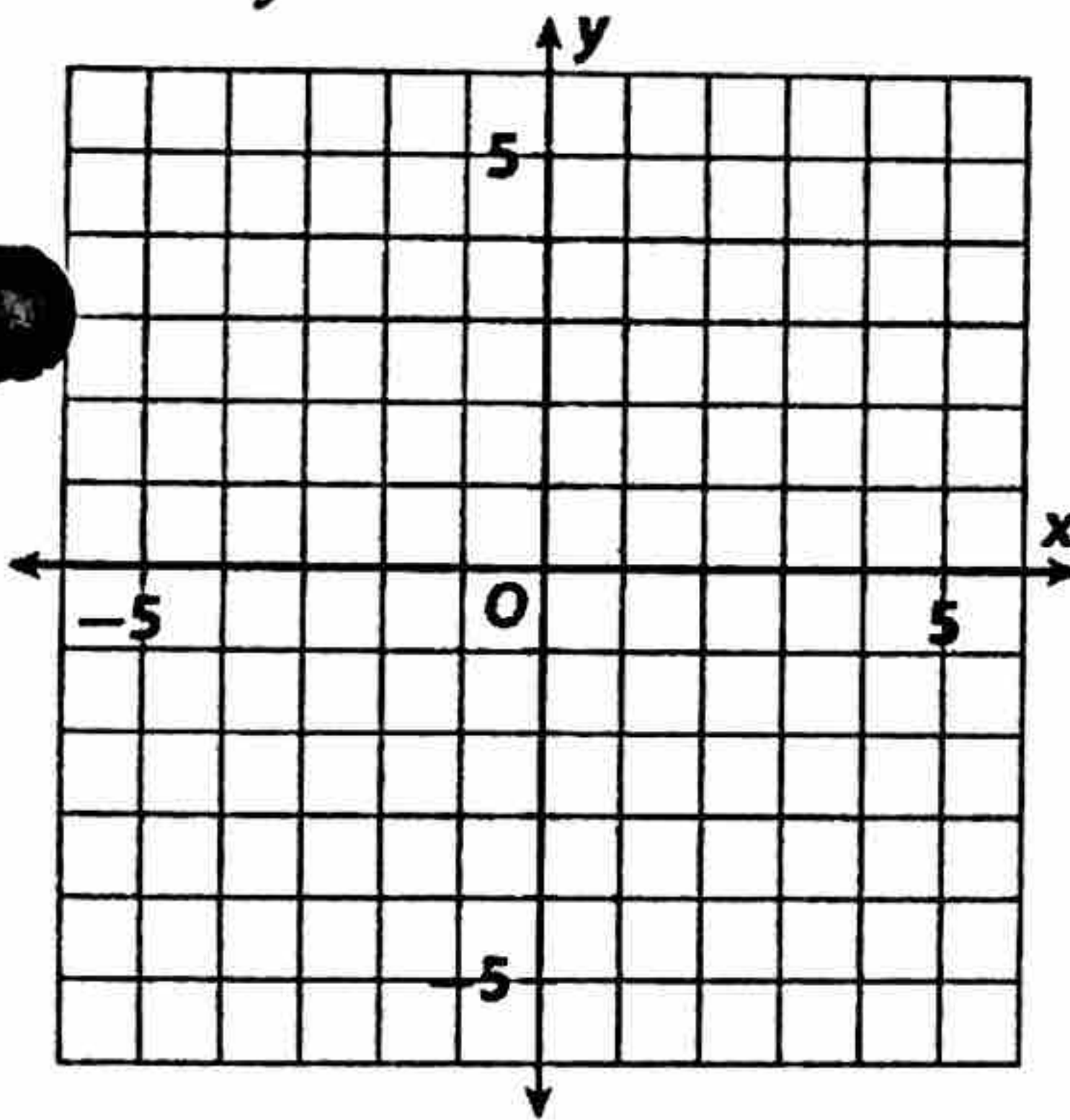
No solution



Infinite solutions

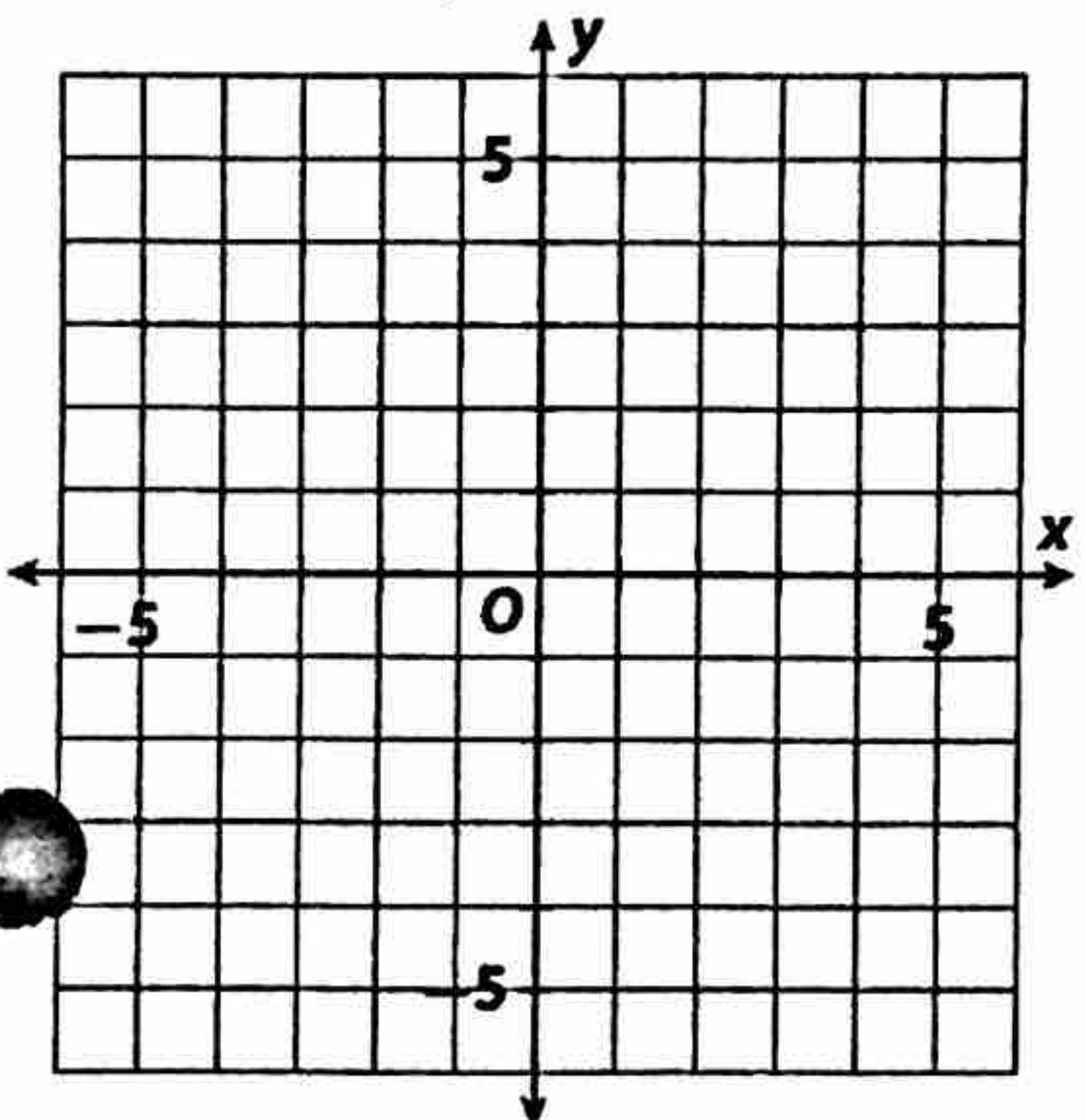
2. Solve the system of equation by graphing.

$$\begin{cases} y = -2x + 5 \\ y = 3x \end{cases}$$



3. Solve the system of equations by graphing.

$$\begin{cases} y = -x - 4 \\ 4x - y = -1 \end{cases}$$



3. Solve the system of equation by substitution.

$$\begin{cases} x = y + 7 \\ y - 8 = 2x \end{cases}$$

5. Solve the system of equation of substitution

$$\begin{cases} 4x + y = 2 \\ 3y + 2x = -1 \end{cases}$$

6. Solve the system of equations using the elimination method.

$$\begin{cases} x + 5y = 8 \\ 2x - 5y = 1 \end{cases}$$

7. Solve the system of equations using the elimination method.

$$\begin{aligned}4x + 2y &= 34 \\10x - 4y &= -5\end{aligned}$$

8. Consider the following system of equations.

$$\begin{aligned}2x + 2y &= -6 \\x - 4y &= 2\end{aligned}$$

Part A: Write an equivalent system of equations.

Part B: Justify why the system you wrote is equivalent.

9. A local pool charges a \$6 sign up fee plus \$2 per visit as a summer special. Another pool runs a summer special that only charges \$3 per visit.

Part A: Write a system of equations to represent this situation.

Part B: Solve the systems of equation. When will cost of going to pools be the same? How much is it?

10. Jeb and Lori went to a florist to buy flowers. Jeb bought 6 roses and 3 carnations for \$20.25. Lori bought 8 roses and 3 carnations for \$25.75. Find the price of one rose and the price of one carnation.

11. If a system of linear equations has infinitely many solutions, what do you know about the slopes and y-intercepts of the graphs of the equation?

12. Write a system of linear equations that you would solve using substitution.