

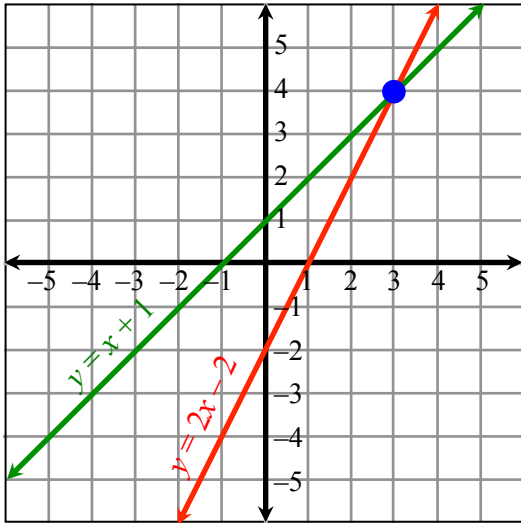
3.3 Solving Systems of Equations by Graphing

Solutions

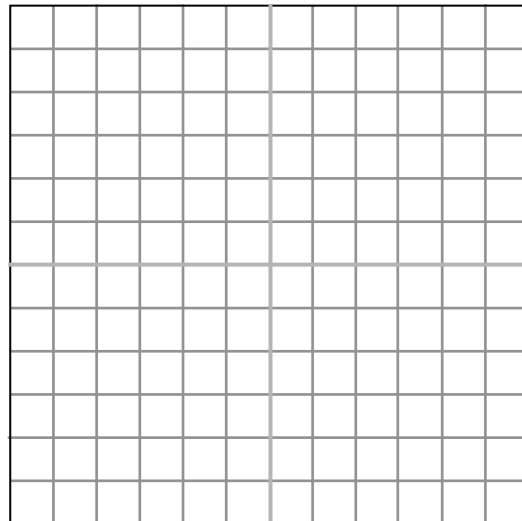
Solve by graphing. State the system solution category.

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

System solution: $\{(3, 4)\}$
 Solution category: consistent and independent

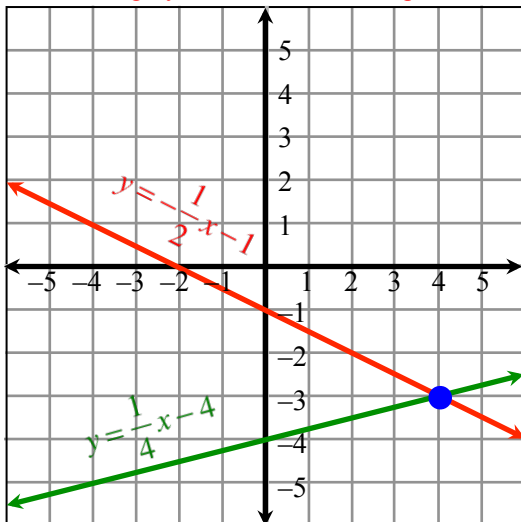


2.
$$\begin{cases} y = 4x + 3 \\ y = -x - 2 \end{cases}$$

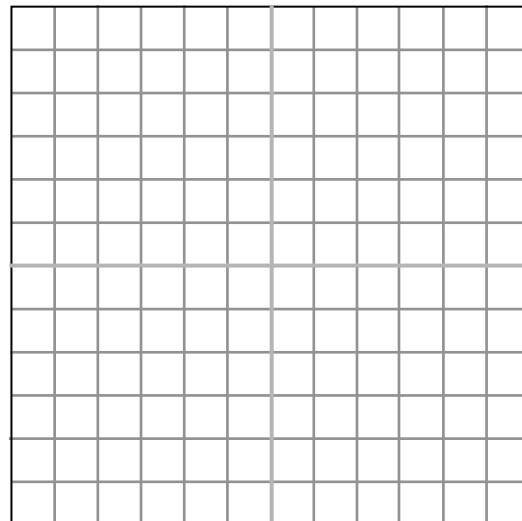


3.
$$\begin{cases} y = -\frac{1}{2}x - 1 \\ y = \frac{1}{4}x - 4 \end{cases}$$

System solution: $\{(4, -3)\}$
 Solution category: consistent and independent



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

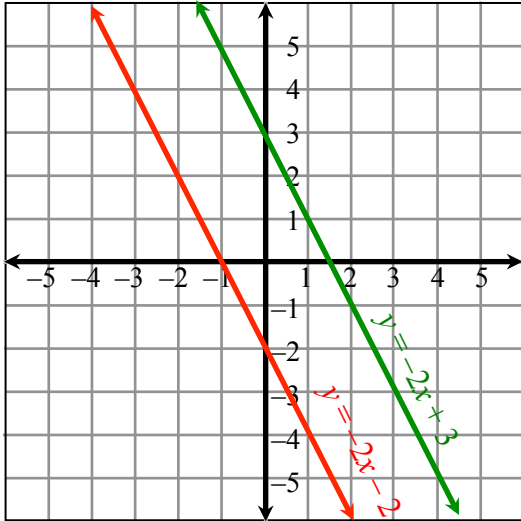


Answers: 1. $\{(3, 4)\}$, consistent and independent; 3. $\{(4, -3)\}$, consistent and independent

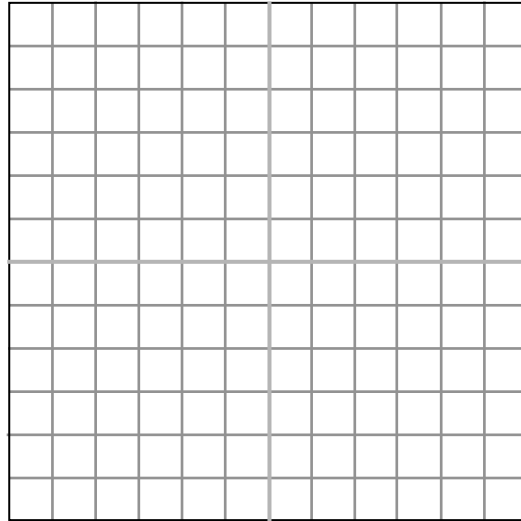
Solve by graphing. State the system solution category.

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

System solution: \emptyset
 Solution category: inconsistent

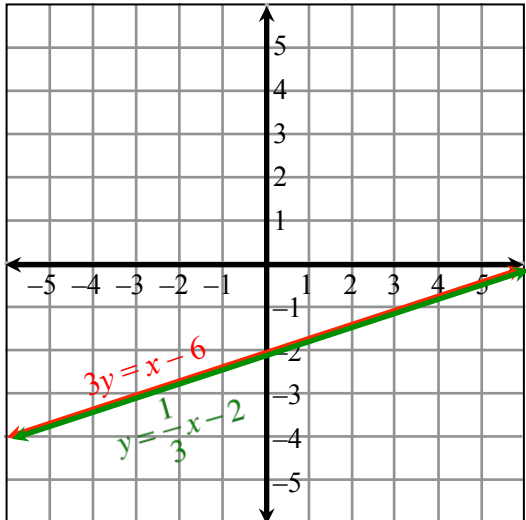


6.
$$\begin{cases} y = x - 5 \\ y = x + 1 \end{cases}$$

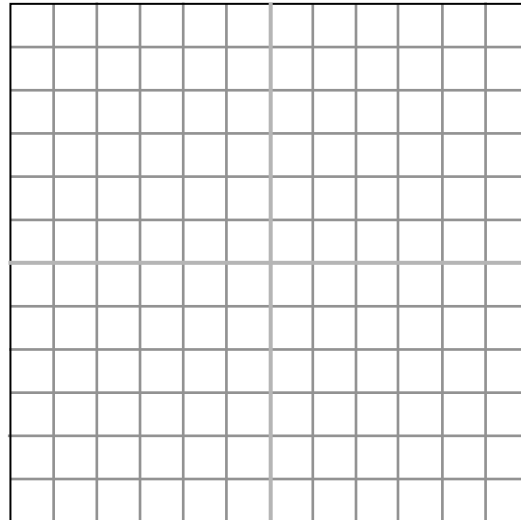


7.
$$\begin{cases} 3y = x - 6 \\ y = \frac{1}{3}x - 2 \end{cases}$$

System solution: $\{(x, y) \mid y = \frac{1}{3}x - 2\}$
 Solution category: consistent and dependent



8.
$$\begin{cases} -4y = x - 4 \\ y = -\frac{1}{4}x + 1 \end{cases}$$



Answers: 5. \emptyset , inconsistent; 7. $\{(x, y) \mid y = \frac{1}{3}x - 2\}$, consistent and dependent