Systems of Equations by the Best Method

The Best Method is:	When	Example
Graph Method	both equations are written in y = AND you have a graphing calculator.	$\begin{cases} y = -3x - 6 \\ y = \dfrac{1}{2}x + 8 \end{cases}$
Substitution Method	one equation has a variable isolated.	$\begin{cases} x = 3y - 4 \\ 4x - 5y = 5 \end{cases}$
Elimination Method	both equations are written in standard form.	$\begin{cases} 4x - 3y = 15 \\ 5x + 2y = 13 \end{cases}$

Systems of Equations by the Best Method Worksheet

Name _____

State the best method to solve the system of equations. Then solve using that method. State the type of system.

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

2. $\begin{cases} x = -5y - 18 \\ x - y = 6 \end{cases}$

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

4. $\begin{cases} x = y + 2 \\ 9x - 8y = 21 \end{cases}$

5. $\begin{cases} y = \dfrac{2}{3}x + 4 \\ y = x + 5 \end{cases}$

6. $\begin{cases} 9x + 12y = 9 \\ 4x + 3y = 18 \end{cases}$

7. $\begin{cases} x = y + 2 \\ 9x - 8y = 21 \end{cases}$

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

9. $\begin{cases} 4x + y = 18 \\ 7x - y = 15 \end{cases}$

10. $\begin{cases} 4x - 7y = 11 \\ 7x - 14y = 14 \end{cases}$

What Type of System?

If this is your solution	Then you have	And your system is
(8, -3)	Intersecting lines one solution	consistent and independent
$0 \neq 12$	parallel lines no solution	Inconsistent
12 = 12	same line graphed twice infinite solutions	consistent and dependent