6-4 Special Systems

Warm-up

Solve each equation:

1.) $2x + 3 = 2x + 4$

2.) $2(x + 1) = 2x + 2$

Vocabulary

Consistent: A system that has at least one solution.

Inconsistent: A system that has no solution.

Independent: A system that has exactly one solution.

Dependent: A system that has infinitely many solutions.

Can you have a consistent independent system?

Can you have a consistent dependent system?

Can you have a inconsistent independent system?

Can you have a inconsistent dependent system?

What type of lines are inconsistent?

Solve using any method:

1.) $\begin{cases} y = 2x - 20 \\ y = -2x + 48 \end{cases}$

Classify the system:

Solve using any method:

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

Classify the system:

Solve using any method:

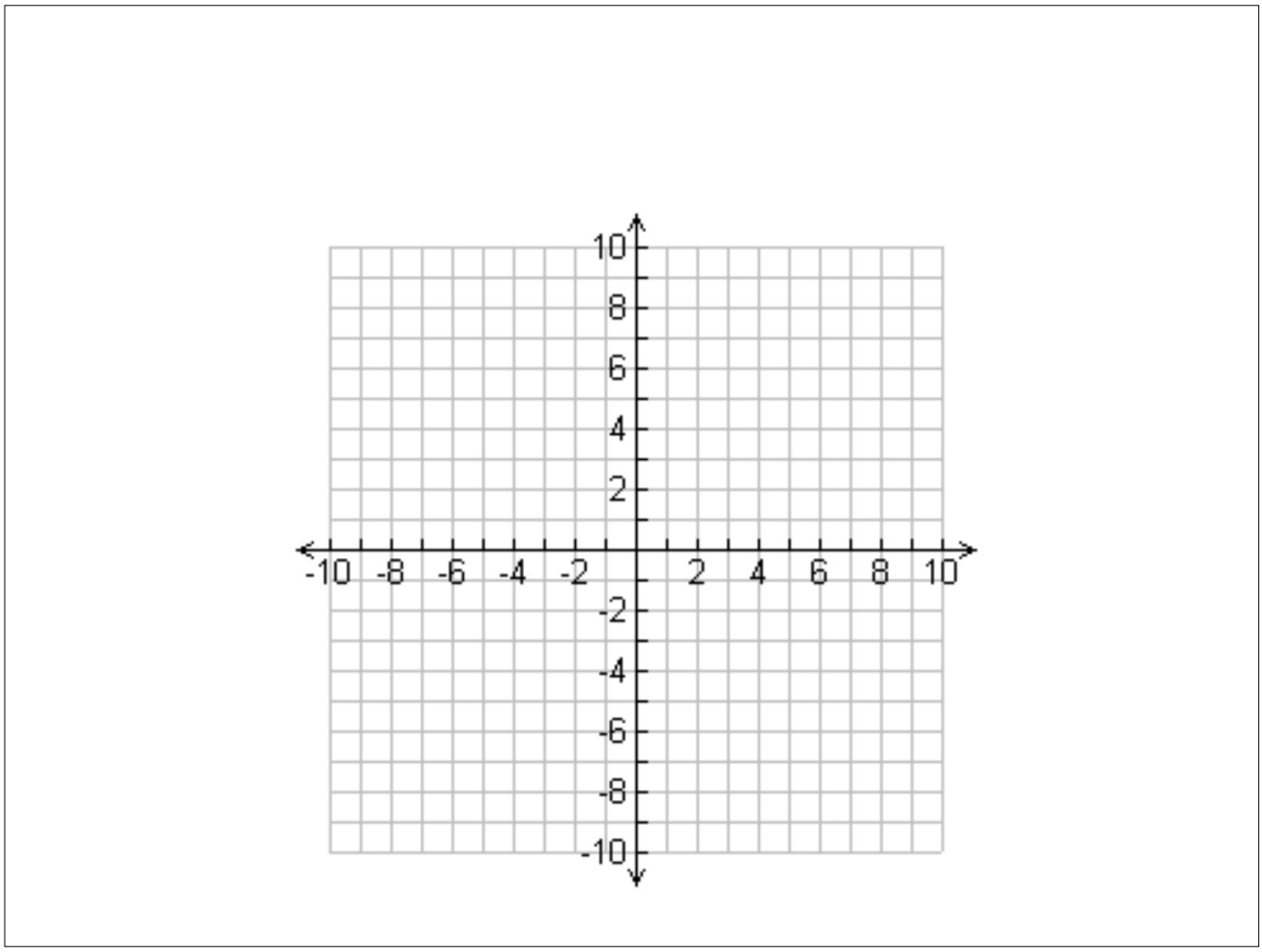
3.) $\begin{cases} y = x - 4 \\ -x + y = 3 \end{cases}$

Classify the system:

Solve using any method:

4.) $\begin{cases} y = 3x + 2 \\ 3x - y + 2 = 0 \end{cases}$

Classify the system: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