

This page includes an additional set of info gap cards to use as an optional demonstration.

Cards for the student activity are located on the following page.

Info Gap: Linear Systems

### Problem Card 0

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

What are the values of  $a$  and  $b$ ?

Info Gap: Linear Systems

### Data Card 0

- The point (0,2) is a solution.
- The second equation has a slope of -3.
- The point (1,-1) is a solution.
- $0 < b < 1$
- There are infinitely many solutions.

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Info Gap: Linear Systems

**Problem Card 1**

The first equation in the system has a slope of 3.

How many solutions does the system have? If there is 1 solution, find it. Explain your reasoning.

Info Gap: Linear Systems

**Data Card 1**

- The slope of the second equation is 3.
- The point (1, -3) is on the first line.
- The point (2, 13) is on the second line.
- The  $y$ -intercept of the second equation has a  $y$  value of 7.
- An intercept for the first equation has an  $x$  value of 2.

Info Gap: Linear Systems

**Problem Card 2**

The solution to a system of equations is (4,3).

What are the two linear equations in the system? Write one equation in standard form ( $Ax + By = C$ ) and the other equation in slope-intercept form ( $y = mx + b$ ).

Info Gap: Linear Systems

**Data Card 2**

- The first equation has an intercept at (0,-5).
- The second equation has intercepts at (0,6) and (8,0).
- The second equation has a slope of  $\frac{-3}{4}$ .

Info Gap: Linear Systems

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