Math Practice - Grade 8

M7 Systems of two linear equations - One solution, no solution, or infinitely many?

M7 8.EE.C.8, 8.EE.C.8a, 8.EE.C.8b, 8.EE.C.8c

Name: _____ Date: _____

How many solutions does the system have? Circle it.

Example: How many solutions does the system have?

How: Two lines that cross once give one solution. Parallel lines never meet, so there is no solution. The same line twice gives infinitely many solutions.

$x + 3y = 8$
$2x + 6y = 16$

One solution | No solution | Infinitely many solutions

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1 **How many solutions does the system have?**

$$3x + 4y = 8$$
$$3x + 4y = 11$$

One solution | No solution | Infinitely many solutions

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2 **How many solutions does the system have?**

$$2x + 3y = 6$$
$$4x + 6y = 12$$

One solution | No solution | Infinitely many solutions

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3 **How many solutions does the system have?**

$$y = x - 4$$
$$5x + 1y = 8$$

One solution | No solution | Infinitely many solutions

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Name: _____ Date: _____

How many solutions does the system have? Circle it.

Example: How many solutions does the system have?

How: Two lines that cross once give one solution. Parallel lines never meet, so there is no solution. The same line twice gives infinitely many solutions.

$2x + 3y = 10$
$4x + 6y = 20$

One solution | No solution | Infinitely many solutions

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1 **How many solutions does the system have?**

$$y = 2x - 3$$
$$3x + 5y = 11$$

One solution | No solution | Infinitely many solutions

---

2 **How many solutions does the system have?**

$$y = -3x + 8$$
$$2x + 2y = 8$$

One solution | No solution | Infinitely many solutions

---

3 **How many solutions does the system have?**

$$2x + 2y = 9$$
$$2x + 2y = 13$$

One solution | No solution | Infinitely many solutions

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Name: _____ Date: _____

How many solutions does the system have? Circle it.

Example: How many solutions does the system have?

How: Two lines that cross once give one solution. Parallel lines never meet, so there is no solution. The same line twice gives infinitely many solutions.

$x + 1y = 8$
$x + 1y = 9$

One solution | **No solution** | Infinitely many solutions

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1 **How many solutions does the system have?**

$$x + 5y = 1$$
$$2x + 10y = 2$$

One solution | No solution | Infinitely many solutions

---

2 **How many solutions does the system have?**

$$y = -3x + 5$$
$$2x + 4y = 0$$

One solution | No solution | Infinitely many solutions

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3 **How many solutions does the system have?**

$$4x + 3y = 0$$
$$8x + 6y = 0$$

One solution | No solution | Infinitely many solutions