

Bellwork Tuesday, March 25, 2014

Without graphing tell if each system of equations has ONE, NONE, or MANY solutions

1. $y = -\frac{1}{2}x + 6$
 $4x + 8y = 48$

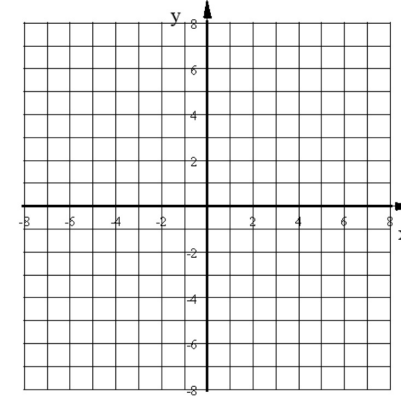
2. $y = 2x - 9$
 $5x + 10y = 20$

3. $y = -3x + 7$
 $-6x - 2y = 8$

4. $y = 4x - 9$
 $12x + 3y = 6$

5. Solve this system of equations by graphing.

$$y = -2x - 1$$
$$3x - 6y = -24$$



6. Solve this system of equations using SUBSTITUTION.

$$Y = -3X + 5$$

$$2X - 6Y = -70$$

7. Solve this system of equations using ELIMINATION.

$$6e + 5f = 27.5$$

$$4e - 3f = -7$$

8. Mario opens a small pizza shop. The equipment cost \$25,000. Rent on the building is \$1200 per month. Insurance and payroll cost him another \$1500 per month. Mario expects to sell 800 pizzas per month for \$5 each. Find the number of months it will take Mario to break-even.

9. A delivery truck is loaded with small and large boxes. There are a total of 75 boxes. Large boxes weigh 30 pounds each and small boxes weigh 18 pounds each. When loaded the truck is carrying a total weight of 1854 pounds. Write and solve a system of equations to find the number of small and large boxes on the truck.