

Summative Assessment

Review

Power Standard # 4

Name: _____ Hour: _____ Date: _____

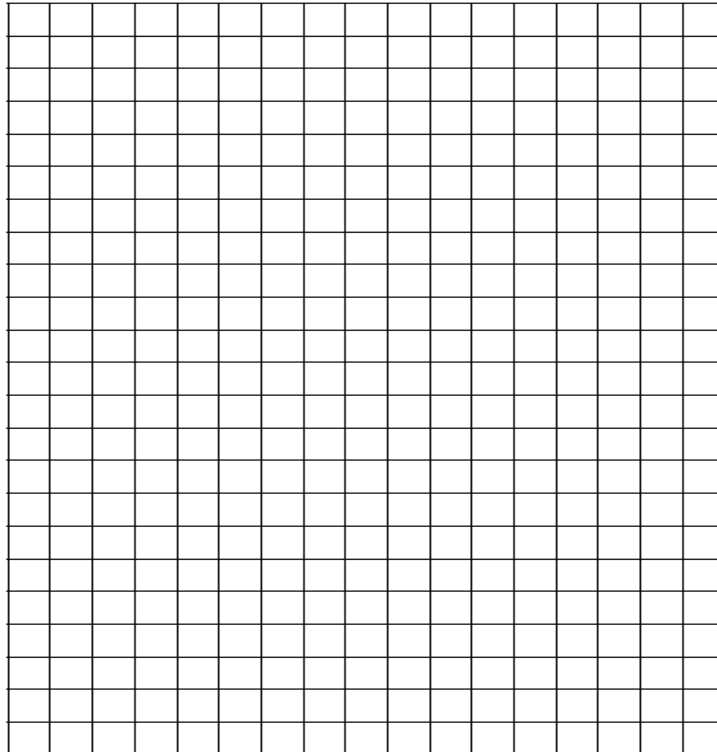
1. Graph the linear system and estimate the solution. Then check the solution algebraically.

I. $2x + y = 1$

$x + y = 2$

II. $x - y = 5$

$2x + y = 4$



2. Solve the system using any algebraic method. Then classify the system as consistent and independent, consistent and dependent, or inconsistent.

(Show your work in a separate sketch paper)

II. $3x - 4y = 5$

$$2x + y = 7$$

I. $-2x + 6y = -2$

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

III. $8x + 4y = -4$

$$x - 2y = 6$$

IV. $x - 5y = -5$

$$3x - 15y = 9$$

3. Solve the system using any algebraic method.

(Show your work in a separate sketch paper)

III. $5x + 7y = -2$

$$2x - 7y = 9$$

II. $4x + 6y = 2$

$$5x + 3y = 3$$

IV. $x - 2y + z = -2$

$$2x + 3z = 9$$

$$2z = 10$$

I. $x - 2y + z = -5$

$$2x + y + 3z = 4$$

$$-x + 2y + 2z = 2$$

4. The class president is organizing a class trip to a nearby amusement park for 314 students. The regular price is \$35 per ticket. However, some students can receive a discount due to volunteer service work that they took part in on Saturdays. The students who are eligible for the discount will pay \$21.50. The total ticket cost for the class trip will be \$10,072. How many students are eligible for the discount?
5. You want to have a pizza party this weekend for some friends and family. You have \$48 budgeted for the pizza and plan on having 56 pieces available. A large pizza has 16 pieces and costs \$ 14. A medium pizza has 12 pieces and costs \$10. How many large and medium pizzas do you need to buy?
6. Find **a** and **b** so that (-2,-1) is the unique solution to the system below.

$$ax + by = -7$$

$$-ax + 2by = 02$$

7. A nut wholesaler sells a mix of peanuts and cashews. The wholesaler charges \$ 2.80 per pound for peanuts and \$ 5.30 per pound for cashews. The mix is to sell for \$3.30 per pound. How many pounds of peanuts and how many pounds of cashews should be used to make 100 pounds of the mix?
8. For a recent job, an electrician earned \$50 per hour, and the electrician's apprentice earned \$20 per hour. The electrician worked 4 hours more than the apprentice, and together they earned a total of \$ 550. How much money did each person earn?
9. **Unfamiliar Situation:** The normal body temperature of a dog is 38°C. Your dog's temperature is 101°F. Does your dog have fever? Explain.

(Temperature: $F = \frac{9}{5} C + 32$, $F = \text{degrees Fahrenheit}, C = \text{degrees Celsius}$)