

NAME: \_\_\_\_\_

1. Write the equations of a plane that has the intercepts  $(2, 0, 0)$ ,  $(0, 1, 0)$ , and  $(0, 0, 3)$ .
2. Which of these points lie on the plane  $2x - y - 4z = -6$ ?  
[A]  $(0, 0, 2)$                       [B]  $(3, 4, 2)$   
[C]  $(1, 12, 0)$                       [D]  $(3, 2, 6)$
3. You have \$50 to spend on a party. Pizzas costs \$8.50 each, chips cost \$2 per bag and soda costs \$1.25 per bottle. Write and graph an equation for the amount of pizza and soda you can buy. Use three variables.
4. Compare the quantity in Column A with the quantity in Column B.  
 $2x - y - 5z = -20$   

<u>Column A</u>	<u>Column B</u>
$x$ - intercept	$z$ - intercept

[A] The quantity in Column A is greater.  
[B] The quantity in Column B is greater.  
[C] The two quantities are equal.  
[D] The relationship cannot be determined on the basis of the information supplied.

[1] Answers may vary. Sample:  $3x + 6y + 2z = 6$

[2] B

Let  $x$  = number of pizzas,  $y$  = number of bags  
of chips, and  $z$  = number of bottles of soda.

$8.5x + 2y + 1.25z = 50$ . Check students'

[3] graphs.

[4] B