

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

- 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)
- 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.
- Write the equations of a plane that has the intercepts (2, 0, 0), (0, 1, 0), and (0, 0, 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.

[1] B

[2] B

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

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'

[4] graphs.