

1. On which axis does each of the following points lie?				2. On which plane does each of the following points lie?			3. Write an equation for each of the following planes:	
	x axis	y axis	z axis		XY plane	YZ plane		XZ plane
a) (5,0,0)				a) (0,4,6)				a) XY plane
b) (0,0,-2)				b) (-2,-1,0)				b) YZ plane
c) (0,3,0)				c) (3,0,-5)				c) XZ plane
d) (0,0,0)				d) (0,-2,3)				

Match each of the following to a description of its graph. (include all descriptions that apply)

4. (3,0,0) _____	A. point on the X-axis
5. (0,0,0) _____	B. point on the Y-axis
6. (0,-6,0) _____	C. point on the Z-axis
7. (0,0,20) _____	D. point on the XY plane
8. (2,3,-1) _____	E. point on the YZ plane
9. (2,4,0) _____	F. point on the XZ plane
10. (-1,0,-1) _____	G. plane \perp to XY plane
11. (0,0,4) _____	H. plane \perp to YZ plane
12. $x = -2$ _____	I. plane \perp to XZ plane
13. $y = 6$ _____	J. plane \parallel to XY plane
14. $z = 0$ _____	K. plane \parallel to YZ plane
15. $z = 7$ _____	L. plane \parallel to XZ plane
16. $x = 0$ _____	M. XY plane
17. $2x+3y=6$ _____	N. YZ plane
18. $4x-2y=8$ _____	O. XZ plane
19. $2x+5z=10$ _____	P. Point in space
20. $7y-2z=14$ _____	Q. Plane \parallel to x-axis
	R. Plane \parallel to y-axis
	S. Plane \parallel to z-axis

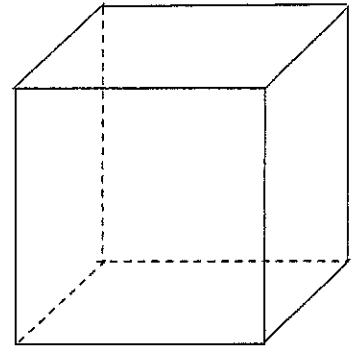
21. Name three points on the graph of each:

(a) $3x - 2y + 4z = 12$	(____, ____ , ____)	(____, ____ , ____)	(____, ____ , ____)
(b) $7x + 4y - 14z = 28$	(____, ____ , ____)	(____, ____ , ____)	(____, ____ , ____)
(c) $3x - 2y - 5z = 15$	(____, ____ , ____)	(____, ____ , ____)	(____, ____ , ____)
(d) $x + y + z = 0$	(____, ____ , ____)	(____, ____ , ____)	(____, ____ , ____)

22. Five of the eight vertices of a cube are points:

$A(-1,3,-2)$, $B(4,3,-2)$, $C(4,-2,-2)$, $D(-1,-2,-2)$, and $E(4,3,3)$. Find coordinates for the other three vertices.

(____, ____ , ____); (____, ____ , ____); (____, ____ , ____)



23. Five of the vertices of a rectangular solid are points:

$A(-1,-1,-5)$, $B(-1,-1,2)$, $C(-1,3,2)$, $D(-1,3,-5)$, and $E(1,-1,-5)$. Find the coordinates of the other three vertices.

(____, ____ , ____); (____, ____ , ____); (____, ____ , ____)

