PROBLEM SET 3-5 AND 3-6
(3-D Graphs and 3-Variable Systems)

Graph each point in coordinate space:

1. (5, 0, – 2) **2.** (0, 0, 4) **3.** (10, – 2, – 5) **4.** (– 1, – 1, – 1)

Sketch the graph of each equation and find the equation of each trace:

5. $7x+14y-z=7$

6. $-3x+5y+10z=15$

7. $32x+16y-8z=32$

8. $-25x+30y+50z=75$

9. $50x+25y+100z=200$

10. $14x-8y+28z=28$

11. $-12x-32y-48z=96$

12. $-20x+10y+50z=100$

Solve each system:

13. $\begin{cases} x-3y+2z=11 \\ x-4y-3z=-5 \\ 2x-2y-4z=2 \end{cases}$

14. $\begin{cases} 4x-y+2z=-6 \\ 2x-3y+z=-8 \\ 2y+3z=-5 \end{cases}$

15. $\begin{cases} 4x-2y+5z=6 \\ 3x+3y+8z=4 \\ x-5y-3z=5 \end{cases}$

16. $\begin{cases} 3x+2y-z=17.8 \\ x-3y+2z=7.9 \\ 2x+y-3z=3.9 \end{cases}$

17. $\begin{cases} 3x+2y+2z=-2 \\ 2x+y-z=-2 \\ x-3y+z=0 \end{cases}$

18. $\begin{cases} x+6z=12 \\ 2x-3y=-6 \\ 2y-z=5 \end{cases}$