Semester 1 Review Series **Module 1 & 2** (arithmetic, combine terms, solve)

#1-5, Simplify each, round answers to the 100ths.

1. $(-4)^2(-3)$ **2.** $(4+3) - 5 \cdot 6$ **3.** $2+ 6(8-3)^3$ **4.** $[8 + (2-6)^2] \div 4$ **5.** $\frac{6-9}{3+1}$

#6-8, Evaluate each expression for the given value (s).

6. *3(x+4) - 1*, for x = -2

7. *x(y-x) + z,* when x= -2, y = -1 and z = 0.

8. $|x+3|$ *+ 7* , for x = -20

#9-12, Simplify each *expression.*

9. 16x - 20x **10.** -2(3w + 4) - w + 7 **11.** $-2y + 3y^2 - 3y + y$ **12.** 4a - 3(3 - 5a)

#13-21, Solve each *equation. Round your answers to the 100ths.*

13. x - 32 = -14 **14** 5.6 - y = 3.3 **15.** 3m - 11 = 1

16. $4 (x - 7) = (2+3)^2$ **17.** 4x - 3 = 5 + 2x **18.** 2(2w - 3) = 6(w +2)

19. $\frac{x-1}{3} = -17$ **20.** $\frac{12}{5} = \frac{2}{x}$ **21.** $\frac{x-1}{3} = \frac{x}{5}$

22. Check your answer to #17 by plugging it back into equation. How can you tell if your solution is the correct one?

23. How can you tell if an equation has *infinite* solutions?

#24-25 Solve each equation for the indicated variable.

24. 3x + 2y = 10; solve for y

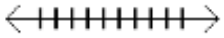
25. 4a + 5b - 6c = 7a; solve for b

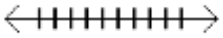
#26-28 Solve each inequality and graph your solution set.

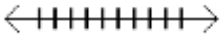
26. 3 - x > 10

27. -3 ≤ 2x + 5 ≤ 9

28. x+1 > 5 **or** 2x +3 ≤ 1







#29-30, Solve each absolute value equation.

29. $|x-5|=22$

30. $2|x+1|+11=5$