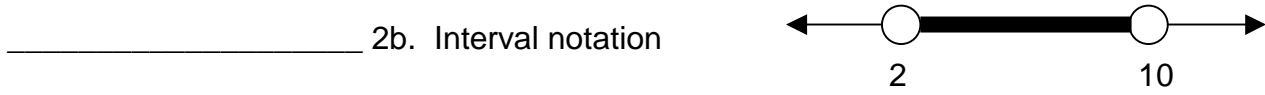
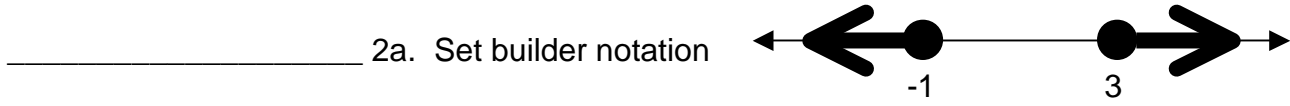
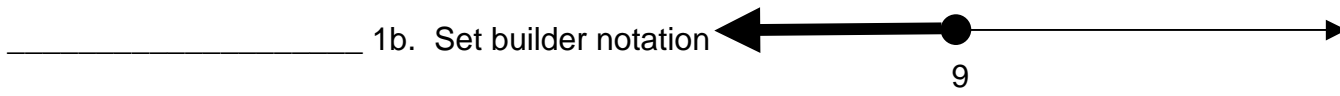
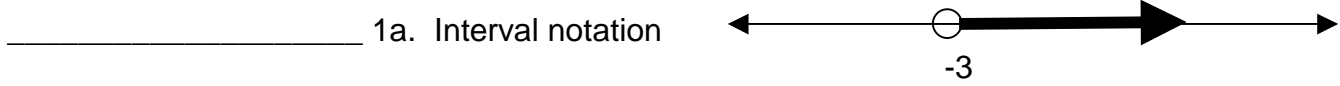


1 – 2. Given the following number line graphs, write the solution in the format requested.



3 – 6. Solve the following inequalities. You may write your solution using either format: set builder notation or interval notation. You may find it useful to graph the solution on a number line first.

_____ 3. $9x - 4 > 6x + 11$

_____ 4. $3(5 - 2x) < 2x - 17$

_____ 5. $\frac{2}{3}x + 5 \leq \frac{1}{2}x - 3$

_____ 6. $2(x - 3) + 7x < 9(1 + x) + 7$

7 – 9. Solve the following absolute value problems. You may write your solution using any format, but may find it useful to graph the solution on the number line first.

_____ 7. $|3 - 4x| = 11$

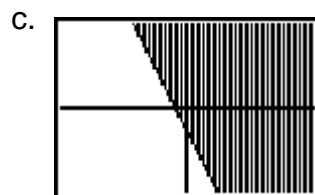
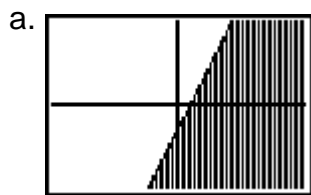
_____ 8. $|3 - 4x| \geq 11$

_____ 9. $|x - 9| > -1$

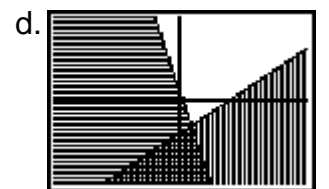
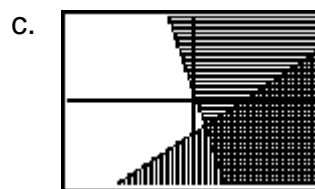
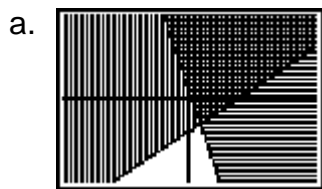
_____ 10. $3|2x + 1| - 4 < 14$

11 – 13. Select the graph of the solution.

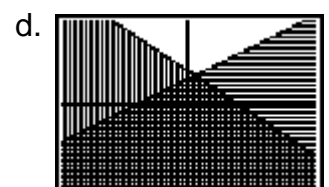
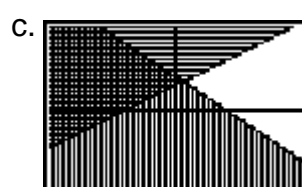
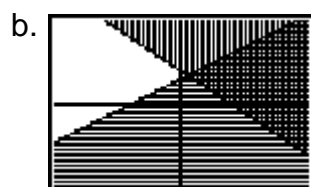
_____ 11. $y \leq 2x - 3$



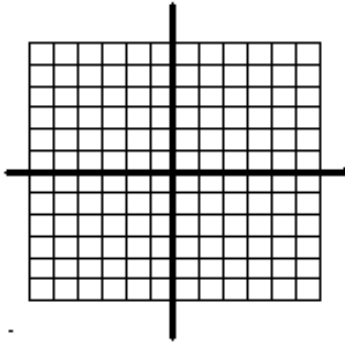
_____ 12. $y \leq \frac{2}{3}x - 4$
 $y \leq -3x + 1$



_____ 13. $2x + 3y \geq 12$
 $x - 2y \geq -6$



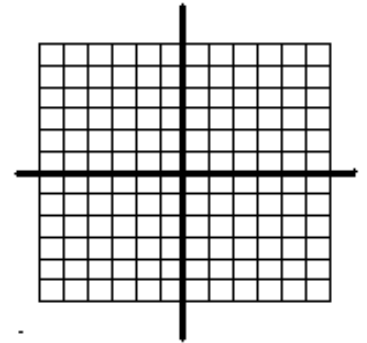
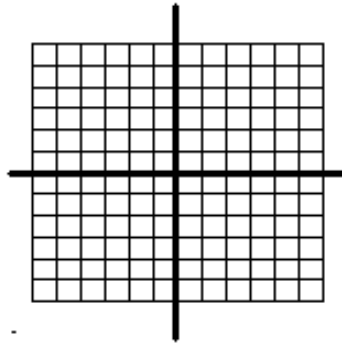
14. Solve by graphing. Very DARKLY shade the solution. $y \leq 4$
 $3x + 2y > 6$



_____ 15. Solve by substitution: $y = x - 2$
 $x + 3y = 2$

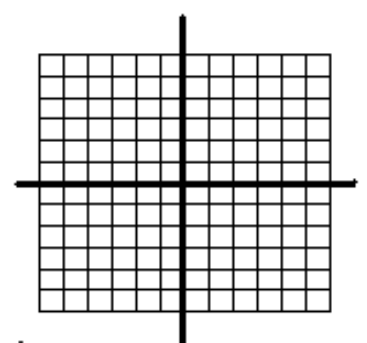
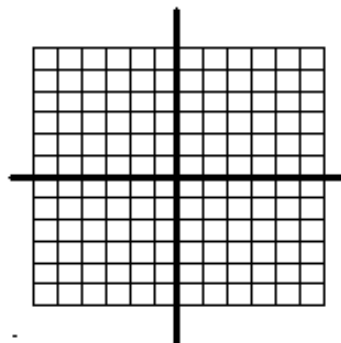
16 - 21. Solve the systems of equations using the method of your choice. You MAY use the graphs if you prefer to solve by graphing, however you may leave them blank if you solve by the substitution or the addition/elimination method. **NOTE: If you solve by graphing, you must still write your solution in the answer column.**

_____ 16. $3x + 2y = 4$
 $x - 2y = -4$



_____ 17. $x + 3y = 1$
 $x + 2y = -1$

_____ 18. $y = \frac{2}{3}x + 4$
 $y = -x - 1$



_____ 19. $y = 3x + 1$
 $y = 3x - 5$

_____ 20. $x - 5y = 5$
 $3x + y = 31$

_____ 21. $5x + 2y = 8$
 $3x - 5y = 11$

22 - 25. Write the equations - but **do not solve.**

22. Two angles are supplementary. One angle is 4 less than twice the other.

Equation 1 _____ Equation 2 _____

23. The perimeter of a rectangle is 63 meters. The length is 8 more than the width.

Equation 1 _____ Equation 2 _____

24. The sum of two numbers is 12. The first number is four less than twice the second.

Equation 1 _____ Equation 2 _____

25. The difference between two numbers is 9. The larger number increased by twice the smaller number is 27.

Equation 1 _____ Equation 2 _____

ANSWERS TO MORE PRACTICE TEST 4

- 1a. $(-3, \infty)$ 1b. $\{x|x \leq 9\}$ 2a. $\{x|x \leq -1 \text{ or } x \geq 3\}$ 2b. $(2, 10)$ 3. $(5, \infty)$ 4. $\{x|x > 4\}$ 5. $\{x|x \leq -48\}$
 6. \mathcal{R} 7. $x = -2, x = \frac{7}{2}$ 8. $\{x|x \leq -2 \text{ or } x \geq \frac{7}{2}\}$ 9. \mathcal{R} 10. $\{x | -\frac{7}{2} < x < \frac{5}{2}\}$ 11. A 12. D 13. B
 14. See below 15. $(2, 0)$ 16. $(0, 2)$ 17. $(-5, 2)$ 18. $(-3, 2)$ 19. No solution 20. $(10, 1)$ 21. $(2, -1)$
 22. $x + y = 180; x = 2y - 4$ 23. $2L + 2W = 63; L = W + 8$ 24. $x + y = 12; x = 2y - 4$
 25. $x - y = 9; x + 2y = 27$