

1. **Recall:** The compound interest formula is  $A = P\left(1 + \frac{r}{n}\right)^{nt}$

If a principal amount of \$6,000 is invested in an account paying an annual percentage rate of 4%, find the amount in the account after 4 years, if the account is compounded monthly.

Solve the following absolute value equations and inequalities. Write solution sets in set-builder notation *and*, for the inequalities, use interval notation, as well.

2.  $|5x - 2| \geq 4$

3.  $|5x - 2| < 4$

4.  $|-9x + 7| = 3$

5.  $|-9x + 7| \leq 3$

6.  $|9x + 7| = -3$

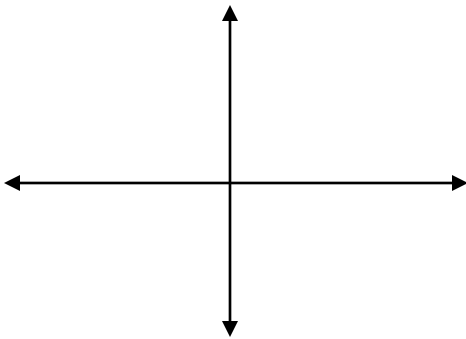
7.  $|9x + 7| < -3$

8.  $|9x + 7| > -3$

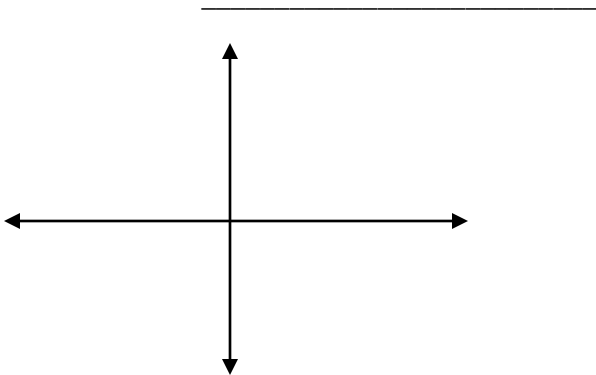
9. Bonus  $|9x + 7| = |3x - 1|$

10. Sketch the graph of each of the following equations. Include the intercepts, and if the intercepts are *all* you label on your graph, that's just fine with me!

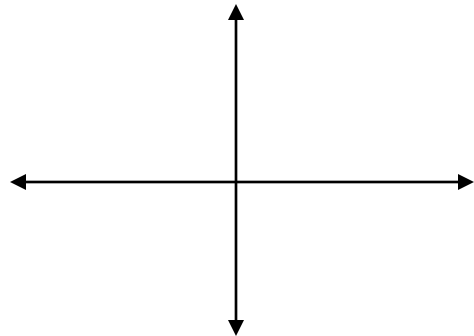
a.  $3x - 2y = 6$  (In what form is this linear equation?) \_\_\_\_\_



b.  $y = 2x + 1$  (In what form is this linear equation?) \_\_\_\_\_



c.  $y = |2x + 1|$  (Reflect on the previous!)



11. Determine the domain and range of the relation from its graph. Use Interval notation in your answer.

