

6-3 Skills Practice***Solving Multi-Step Inequalities***

Examples: Use the GRI: Golden Rule of Inequalities. "Whatever you do to one side, do to the other and if you multiply or divide by a negative, flip the inequality."

$$1. \quad \frac{3}{4}t - 3 \geq -15$$

$$\frac{3}{4}t - 3 + 3 \geq -15 + 3$$

$$\frac{3}{4}t \geq -12$$

$$\frac{4}{3}\left(\frac{3}{4}\right)t \geq \frac{4}{3}(-12)$$

$$t \geq -16$$

$$2. \quad 5(k + 8) - 7 \leq 23$$

$$5k + 40 - 7 \leq 23$$

$$5k + 33 \leq 23$$

$$5k + 33 - 33 \leq 23 - 33$$

$$5k \leq -10$$

$$\frac{5k}{5} \leq \frac{-10}{5}$$

$$k \leq -2$$

Solve each inequality.

$$3. \quad -2b + 4 > -6$$

$$4. \quad 3x + 15 \leq 21$$

$$5. \quad \frac{d}{2} - 1 \geq 3$$

$$6. \quad \frac{2}{5}a - 4 < 2$$

$$7. \quad -\frac{t}{5} + 7 > -4$$

$$8. \quad \frac{3}{4}j - 10 \geq 5$$

$$9. \quad -\frac{2}{3}f + 3 < -9$$

$$10. \quad 2p + 5 \geq 3p - 10$$

$$11. \quad 4k + 15 > -2k + 3$$

$$12. \quad 2(-3m - 5) \geq -28$$

$$13. \quad -6(w + 1) < 2(w + 5)$$

$$14. \quad 2(q - 3) + 6 \leq -10$$

* Use Looseleaf.

* Show all work.

* Pencil Only.

* Circle problem number, write out the problem, show work, box answer. Never feed an alligator.

* Label work with Name, Period, Date, + "WS6-3"