AA WS 3.3
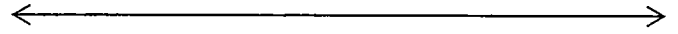
Name: _____

Solve each inequality and Graph your solution.

1. $\dfrac{x}{6} < 1$
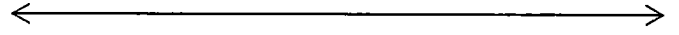
2. $2 < -\dfrac{x}{4}$

$\longleftrightarrow$ $\longleftrightarrow$

3. $-\dfrac{x}{3} \geq 0.5$

4. $-5 \leq \dfrac{5}{2}x$

$\longleftrightarrow$ $\longleftrightarrow$

5. $\dfrac{4}{3}x \geq 0$

6. $6 \geq -\dfrac{3}{2}x$

$\longleftrightarrow$ $\longleftrightarrow$
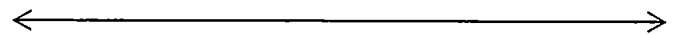
7. $\dfrac{3}{4}x \geq -\dfrac{9}{8}$
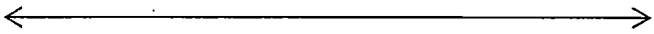
8. $-\dfrac{5}{8} > -\dfrac{5}{6}x$

$\longleftrightarrow$ $\longleftrightarrow$
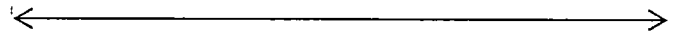
9. $4x \geq 8$
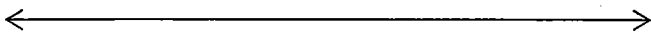
10. $-20 \geq -5x$

$\longleftrightarrow$ $\longleftrightarrow$
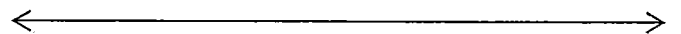
11. $-7x > 42$

12. $-3x \leq 16$

$\longleftrightarrow$ $\longleftrightarrow$
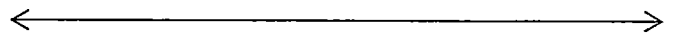
13. $16 > 3.2x$

14. $3.6 \le -0.8x$

$\longleftarrow \quad\quad\quad\quad\quad\quad\quad\quad\quad \longrightarrow$ $\longleftarrow \quad\quad\quad\quad\quad\quad\quad\quad\quad \longrightarrow$
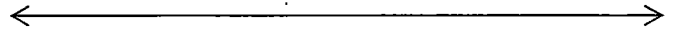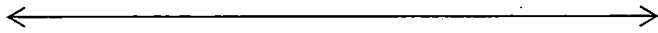
Write an inequality that represents the situation, and solve.
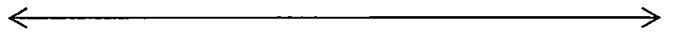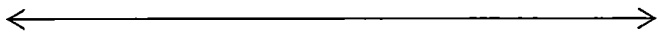
15.   Tetras cost $3.99 each. You can spend at most $25. How many tetras can you buy for your aquarium?

Write four solutions to each inequality. *Hint: Solve & Graph it first...then pick numbers from your shaded region.*

16. $\dfrac{x}{2} \le -1$

17. $-4 > 8x$

$\longleftarrow \quad\quad\quad\quad\quad\quad\quad\quad\quad \longrightarrow$ $\longleftarrow \quad\quad\quad\quad\quad\quad\quad\quad\quad \longrightarrow$

Review Section 3.1 – Solve each inequality

18. $x + 5 \le -6$

19. $x - 21 > 54$

20. $-\dfrac{2}{3} < x + \dfrac{1}{3}$

Review – Solve each equation

21. $-x + 8 + 4x = 14$

22. $-6(2y + 2) = 12$

23. $0.5x + 3.5 - 2.5x = 1.5x$