Name: _____ Date: _____

BLM 9–10

Section 9.3 Extra Practice

1. Explain how to verify that the solution to the inequality $\frac{x}{2} - 2 \leq 6$ is $x \leq 16$.

2. Solve each inequality.

a) $3x - 5 > 2x + 4$ **b)** $4x + 3.2 < 2x + 1.4$

c) $\frac{3}{4}x + 8 \leq \frac{1}{2}(3x - 5)$ **d)** $6(5 - x) \leq 7(x - 5)$

3. Solve. Draw a number line to represent each solution.

a) $9x + 4 \leq 5x + 12$ **b)** $5x - 2 > 9x - 10$

c) $3(2x - 3) < 13 + 2(x - 1)$ **d)** $4(2x - 1) - 5(x + 1) \geq 9$

4. Verify each solution.

a) $2x - 9 > 5x + 6$; $x < -5$ **b)** $2\frac{2}{3}(x + 3) \leq 9 + 2(x + 4)$; $x \leq 13\frac{1}{2}$

5. Your parents are celebrating their 25th wedding anniversary. They have compared the rates at two banquet halls. Fancy Feast charges $200 for the hall plus $30 per person. Beautiful Banquet charges $400 for the hall plus $20 per person.

a) Write an inequality to represent the number of people who could attend the celebration at Fancy Feast with a cost of no more than $2000.

b) How many people need to attend to make Beautiful Banquet more cost efficient? Show your work.

6. The following are the wages for two summer jobs building grain bins.

Job A: $60 per bin plus $120 per day
Job B: $75 per bin plus $90 per day

Write and solve an inequality to determine how many grain bins you would need to build each day to make Job B pay more than Job A.