Name: _____ Date: _____

BLM 9–5

Section 9.3 Extra Practice

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

Check the solution.

_____

_____

_____

2. Solve each inequality.

a) $3x - 5 > 4$

b) $4x + 3.2 < 1.4$

c) $8(x + 3) > -16$

d) $-6(x - 5) \leq 42$

ISBN: 978–0–07–000219–7

Name: _____ Date: _____

BLM 9–5
(continued)

3. Solve. Draw the solution on the number line.

a) $9x + 4 \leq 5x + 12$

$9x + 4 - \mathbf{5x} \leq 5x + 12 - \mathbf{5x}$

$\_\_\_\_\_x + 4 \leq 12$

$\_\_\_\_\_x + 4 - \mathbf{4} \leq 12 - \mathbf{4}$

$\frac{\square}{\square}x \leq \frac{\square}{\square}$

$x \leq \_\_\_\_\_$

b) $5x - 2 > 9x - 10$

c) $3(2x - 3) < 11 + 2x$

d) $4(2x - 1) + 5(x + 1) \geq 14$

ISBN: 978–0–07–000219–7

Name: _____ Date: _____

4. Verify each solution.

a) $2x - 9 > 5x + 6$; $x < -5$

Check $x < -5$. Let $x =$ _____

Is $x < -5$ the solution?

Circle YES or NO.

b) $3(x + 3) \leq 9 + 2(x + 4)$; $x \leq 8$

Check $x = 8$.

Left Side	Right Side

Check $x < 8$. *Let* x = _____

Is $x \leq 8$ the solution?

Circle YES or NO.

ISBN: 978–0–07–000219–7

Name: _____ Date: _____

BLM 9–5
(continued)

5. Your parents are having a party at a hall for their 25th wedding anniversary.
Hall A charges $200 for the hall plus $30 per person.
Hall B charges $400 for the hall plus $20 per person.

a) Write and solve an inequality to find the number of people who could attend the celebration at Hall A with a cost of no more than $2000.
Let n = number of people

	Cost Per Person	Cost for n People	Cost of Hall	Total Cost
Hall A				

Inequality:

Solve:

Sentence: _____

b) Write an inequality to show the number of people who could attend the celebration at Hall B with a cost of no more than $2000.
Let n = number of people

	Cost Per Person	Cost for x People	Cost of Hall	Total Cost
Hall B				

Inequality:

Solve:

Sentence: _____

c) Which hall offers the best deal? Give 1 reason for your answer.

_____

_____

ISBN: 978–0–07–000219–7

Name: _____ Date: _____

6. The following are the wages for two summer jobs building grain bins.
Job A: $60 per bin plus a fee of $120 per day
Job B: $75 per bin plus a fee of$90 per day
Complete the table. Then write and solve an inequality to find how many grain bins you would need to build each day to make Job B pay more than Job A.

Let n = number of bins

	Cost Per Bin	**Cost for *n Bins***	**Fee Per Day**	**Total Cost Per Day**
Job A				
Job B				

Inequality: _____

Solve:

Sentence: _____

ISBN: 978–0–07–000219–7