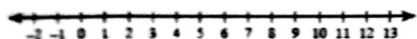


NAME: _____

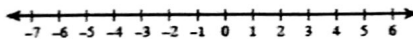
COMPOUND/INEQUALITY APPLICATIONS

Solve each compound inequality and graph its solution.

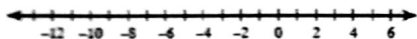
1) $0 \leq 9 + 9x \leq 117$



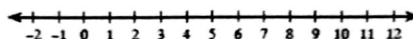
2) $50 \geq 10 - 10n \geq -30$



3) $40 \geq 11n - 4 \geq -125$



4) $3 < 6x + 3 < 57$



For each word problem, write an inequality and solve it.

<p>1) Inequality: _____</p> <p>Solution: _____</p>	<p>Angelica is a sales representative for an appliance distributor. She needs to make at least \$5000 in weekly sales of a particular TV model to qualify for a sales competition to win a trip to the Bahamas. If the TV's sell for \$250 each, how many TV's will she have to sell to qualify?</p>								
<p>2) Inequality: _____</p> <p>Solution: _____</p>	<p>The charge per mile for a compact rental car at 4-D Rentals is \$0.12. Mrs. Rodriguez is on a business trip and must rent a car to attend various meetings. She has a budget of \$60 per rental for mileage charges. What is the greatest number of miles Mrs. Rodriguez can travel without going over her budget?</p>								
<p>3) Inequality: _____</p> <p>Solution: _____</p>	<p>The table below shows the number of tickets sold per day for a Sadie Hawkins dance. The gym can hold 600 people. The final day of ticket sales is Thursday. Find the most number of tickets they can sell on Thursday.</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="padding: 2px;">Day</th> <th style="padding: 2px;"># Tickets Sold</th> </tr> </thead> <tbody> <tr> <td style="padding: 2px;">MON</td> <td style="padding: 2px;">198</td> </tr> <tr> <td style="padding: 2px;">TUES</td> <td style="padding: 2px;">96</td> </tr> <tr> <td style="padding: 2px;">WED</td> <td style="padding: 2px;">204</td> </tr> </tbody> </table>	Day	# Tickets Sold	MON	198	TUES	96	WED	204
Day	# Tickets Sold								
MON	198								
TUES	96								
WED	204								
<p>4) Inequality: _____</p> <p>Solution: _____</p>	<p>Shawn sells used bicycles. He makes \$120 per week plus \$10 for each bicycle sold. He wants to earn at least \$400 per week. How many bicycles must he sell each week to accomplish this?</p>								