Name _____ Date _____ Class _____

Problem Solving
Solving Two-Step and Multi-Step Inequalities

Write and solve an inequality for each situation.

1. Jillene is playing in a basketball tournament and scored 24 points in her first game. If she averages over 20 points for both games, she will receive a trophy. How many points can Jillene score in the second game and receive a trophy?

_____

_____

2. Marcus has accepted a job selling cell phones. He will be paid $1500 plus 15% of his sales each month. He needs to earn at least $2430 to pay his bills. For what amount of sales will Marcus be able to pay his bills?

_____

_____

3. A 15-foot-tall cedar tree is growing at a rate of 2 feet per year beneath power lines that are 58 feet above the ground. The power company will have to prune or remove the tree before it reaches the lines. How many years can the power company wait before taking action?

_____

_____

4. Binh brought $23 with her to the county fair. She purchased a $5 T-shirt and now wants to buy some locally grown plants for $2.50 each. What are the numbers of plants that she can purchase with her remaining money?

_____

_____

Benedict, Ricardo, and Charlie are considering opportunities for summer work. The table below shows the jobs open to them and the pay for each. Use this information to answer questions 5–7.

5. Benedict has saved $91 from last year and would like to baby-sit to earn enough to buy a mountain bike. A good quality bike costs at least $300. What numbers of hours h can Benedict baby-sit to reach his goal?

A $h \geq 14$ **C** $h \geq 38$

B $h \geq 23$ **D** $h \geq 71$

Job	Pay
Mowing Lawns	$15 per lawn
Baby-Sitting	$5.50 per hour
Tutoring	$9 per session

6. Ricardo has agreed to tutor for the school. He owes his older brother $59 and would like to end the summer with at least $400 in savings. How many sessions s can Ricardo tutor to meet his goal?

F $s \geq 31$ **H** $s \geq 51$

G $s \geq 38$ **J** $s \geq 83$

7. Charlie has agreed to mow his neighbor's lawn each week and will also baby-sit some hours. If he makes $100 or more each week, his parents will charge him rent. How many hours h should Charlie agree to baby-sit each week to avoid paying rent?

A $h \leq 15$ **C** $h \leq 21$

B $h \geq 15$ **D** $h \geq 21$

 Holt Algebra 1