

LESSON

Problem Solving**3-4****Solving Two-Step and Multi-Step Inequalities**

Write and solve an inequality for each situation.

1. Jillene scored 24 points in her first game. If she averages over 20 points for two games, she will get a prize. How many points should Jillene score in the second game to get a prize?

Solution:

Let p = number of points in 2nd game

$$\frac{p + 24}{2} > 20$$

$$p + 24 > 40$$

$$p > 16$$

2. Marcus has a job selling cell phones. He is paid \$1,500 plus 15% of his sales each month. He needs to earn at least \$2,430. For what amount of sales will Marcus earn \$2,430?

Let s = needed sales

$$1,500 + \underline{\hspace{2cm}}s \geq 2,430$$

$$s \geq \underline{\hspace{2cm}}$$

The table below shows summer jobs and the pay for each. Use this information to answer questions 3–5.

3. Benedict has \$91 saved from last year and will baby-sit to earn enough to buy a mountain bike that costs at least \$300. What number of hours h can Benedict baby-sit to make enough money?

A $h \geq 14$

B $h \geq 23$

C $h \geq 38$

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

4. Ricardo has agreed to tutor. 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 make enough money?

F $s \geq 31$

G $s \geq 38$

H $s \geq 51$

5. Charlie will 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 baby-sit each week so he doesn't pay rent?

A $h \leq 15$

B $h \geq 15$

C $h \leq 21$

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2. Marcus has a job selling cell phones. He is paid \$1,500 plus 15% of his sales each month. He needs to earn at least \$2,430. For what amount of sales will Marcus earn \$2,430?

Let s = needed sales

$$1,500 + 0.15s \geq 2,430$$

$$s \geq 6,200$$

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