Name _____ Date _____

Two-Step Inequalities: Solving, Graphing and Word Problems

Directions: Answer each question. Type number answers with digits.

1. Zoe's phone plan costs $25 a month plus $0.10 for each text message. She wants her monthly bill to be at most $40. Which inequality can she use to find t, the number of texts she can send in a month?

A. $0.10(t + 25) \leq 40$
B. $0.10t + 25 \geq 40$
C. $25t + 0.10 \leq 40$
D. $0.10t + 25 \leq 40$

2. An amusement park charges $12 for admission plus $2.50 for each ride. Imani can spend at most $40 there. What is the greatest whole number of rides she can take?

_____ rides

3. Carlos has $40 saved. He adds $15 to his savings each week and spends none of it. He wants at least $220 for a new bike. What is the least whole number of weeks he must save?

_____ weeks

4. On a number line, which graph shows the solutions of $2x - 3 \geq 9$?

A. A closed circle at 3, shaded to the right
B. An open circle at 6, shaded to the right
C. A closed circle at 6, shaded to the left
D. A closed circle at 6, shaded to the right

5. Solve $-4x + 7 \leq 31$.

A. $x \geq -9.5$
B. $x \leq -6$
C. $x \geq 6$
D. $x \geq -6$

6. The student council has $45 and sells dance tickets for $6 each. It needs more than $300 in all. What is the least whole number of tickets it must sell?

_____ tickets

7. Leah has a $50 gift card for game rentals, and each rental costs $4.50. She wants at least $5 left on the card. What is the greatest whole number of rentals she can make?

_____ rentals

8. Ben solved $4x + 3 \geq -9$. His work is shown.

1. $4x \geq -12$
2. $x \leq -3$
3. The solutions are -3 and all numbers less than -3.

Which step has the first mistake?

A. The solutions are -3 and all numbers less than -3.
B. $x \leq -3$
C. There is no mistake.
D. $4x \geq -12$