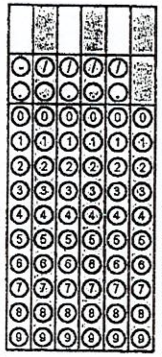
Problem Set #4-MATH 7 PLUS Name:_____

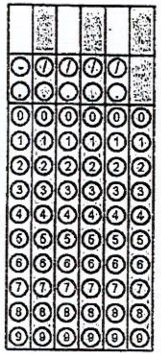
Date:_____ Period:____

SHOW WORK or PROVIDE EXPLANATION for all problems. Work or explanation for each problem is required to receive credit!! Write the letter of your final answer for #4-15 in the answer box provided.

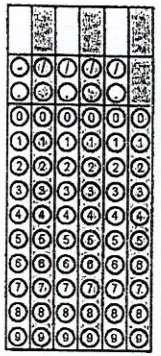
1. Solve for *n*:
$-2.5n - 53.5 = -38$



2. Solve for x:
$-\frac{2}{5}x = 2\frac{10}{45}$



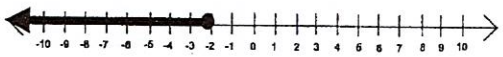
3. What is the value of 3^6 ?



4. Solve: $11 \le 5 + e$. Show all steps to solve.

A. $e \le -6$ B. $e \ge -6$ C. $e \le 6$ D. $e \ge 6$

5. Which inequality has solutions represented by the graph below? Solve and graph each inequality as part of your "proof".



A. $\frac{y}{-2} \ge 1$ B. $-3y \le 6$ C. $y - 2 \ge -4$ D. $y + 3 \le -5$

4._____
5._____
6._____
7._____
8._____
9._____
10._____
11._____
12._____
13._____
14._____
15._____

6. Tamara is planting bushes around her house. So far today she has planted 5 bushes and she wants to plant at least 12 bushes today. Which inequality can be used to find the number of bushes (b) Tamara still needs to plant? Show your variable assignment, steps to solve, and number line solution for the inequality that you choose.

A. $b + 5 \ge 12$ B. $b - 5 \ge 12$ C. $5b \ge 12$ D. $\frac{b}{5} \ge 12$

7. The minimum daily requirement of vitamin C is 30 milligrams. Which inequality describes this situation? Record your choice in the answer column and then choose one of the other solutions shown and write your own sentence to describe that inequality.

A. $C < 30$ mg B. $C \le 30$ mg C. $C > 30$ mg D. $C \ge 30$ mg

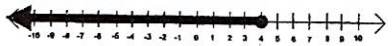
STATEMENT for answer choice:_____ : _____

_____

8. A truck can carry a load of at most 11,000 pounds. Use the inequality $120n \le 11{,}000$ to find the maximum number of 120-pound appliances the truck can carry. Show your steps to solve.

A. 90 B. 91 C. 92 D. 93

9. The graph below represents the solution to which inequality? Solve each inequality to prove your choice.



A. $x - 3 \le 7$ B. $x + 5 \le 9$ C. $x - 1 \ge 3$ D. $x + 6 \ge -2$

10. Solve for n. $\frac{n}{-3} > 21$ SHOW all steps below to prove your choice.

A. $n < -63$ B. $n < -7$ C. $n > -63$ D. $n > -7$