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## TRS 92: Solving Inequalities with One Variable

Solve the following inequalities. Then graph the solution on the number line given.

1. -2x - 13 > -7

2.  $5y + 7 \le 2y + 1$ 

3. 
$$-\frac{3n}{4} < 1$$

- 4. It costs \$5 per day for parking at a local parking garage. The owner of the garage offers a monthly parking pass that costs \$60. For what number of days is the daily parking rate a better deal?
  - a. Identify the variable.
  - b. Write the inequality that represents this situation.
  - c. Solve the inequality. Show your work.
  - d. Write the answer to **part c** using a complete sentence and correct vocabulary.
  - e. Which of the following number of days would be possible solutions to the problem (circle all possible answers)?

	9 days	12 days	15 days	1 day	20 days	25 days
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- 5. A student in an intermediate algebra course must take 5 exams. His scores on the first four exams this semester were 93, 95, 84, and 80. What is the minimum he must score on the last exam to have an average score of at least 87?
  - a. Identify the variable.
  - b. Write the inequality that represents this situation.
  - c. Solve the inequality and show your work.
  - d. Write the answer to **part c** using a complete sentence and correct vocabulary.
  - e. For which of the following test scores would the average be met (circle all possible answers)?

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83	84	85	86	82	81	80	67	94	100