1. Solve using the multiplication principle. Don't forget to perform a check.

\[- \frac{7}{8}x = - \frac{9}{10}\]

Answer: \[\frac{36}{35}\]

2. Solve using the addition principle.

\[x - \frac{1}{8} = - \frac{1}{4}\]

Answer: \[-\frac{1}{8}\]

3. Solve and check.

\[7(3x - 2) = 91\]

Select the correct choice below and fill in any answer boxes in your choice.

- A. \[x = \square\] (Simplify your answer.)
- B. The solution is all real numbers.
- C. There is no solution.

Answer: A, 5

4. Solve for \(y\).

\[2x - y = 3\]

\[y = \square\]

(Use integers or fractions for any numbers in the equation. Simplify your answer.)

Answer: \[2x - 3\]

5. The room numbers of two adjacent classrooms are two consecutive odd numbers. If their sum is 1008, find the classroom numbers.

The classroom numbers are \[\square\]. (Use a comma to separate answers.)

Answer: 503, 505
6. Hank's winning margin in a board game was 774 points. The total points scored by Hank and his opponent was 1840. What was Hank's score?

What was Hank's score? □ points

Answer: 1307

7. Graph the inequality on a number line. Then write the solution using interval notation.

\[ x < 1 \]

Choose the graph of \( x < 1 \).

- [Graph A]
- [Graph B]
- [Graph C]
- [Graph D]

Which of the following represents the inequality \( x < 1 \) using interval notation?

- OA. \( (-\infty,1) \)
- OB. \( (1,\infty) \)
- OC. \( (-\infty,1] \)
- OD. \( [1,\infty) \)

Answers C A

8. Solve using the addition and multiplication principles.

\[ 8 - 4x > 1 - 3x \]

Select the correct choice below and fill in the answer box within your choice.

- OA. The solution set is \( \{ x | x < \square \} \).
  (Simplify your answer.)

- OB. The solution set is \( \{ x | x > \square \} \).
  (Simplify your answer.)

- OC. The solution set is \( \{ x | x \geq \square \} \).
  (Simplify your answer.)

- OD. The solution set is \( \{ x | x \leq \square \} \).
  (Simplify your answer.)

Answer: A, 7
9. Following the guidelines of the Food and Drug Administration, Dale tries to eat at least 5 servings of fruit each day. For the first six days of one week, she had 5, 6, 4, 4, 4, and 5 servings. How many servings of fruit should Dale eat on Saturday to average at least 5 servings per day for the week?

For Dale to average at least 5 servings of fruit per day of the week, she must eat

- A. at least 2 servings on Saturday.
- B. more than 7 servings on Saturday.
- C. at least 7 servings on Saturday.
- D. more than 2 servings on Saturday.
- E. none of the above.

Answer: C

10. A certain kind of animal weighs about 73 pounds at birth and gains about 2 pounds per day for the first few weeks. Determine those days for which the animal's weight is more than 121 pounds.

The animal's weight is more than 121 pounds when the animal is more than □ days old.

Answer: 24