Name:_____ Date:_____ Per:_____ Folder #: _____

Math 7 Unit 6 Study Guide

Directions: Answer each question completely. Show ALL work to defend your answers.

1. A rectangle has a length of 10 and an unknown width $x + 1$. Write an expression for:

    a. the perimeter of the rectangle.   _____

    a. the area of the rectangle.   _____

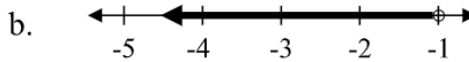2. Simplify.

$$32 - (3 + 9) \div 3 - 62 \div 2$$

3. Solve and graph on a number line.

    a. $x+7 < 21$ b.   4x< -12

4. Write an inequality to represent each of the following graphs.

    a.

    b.

5. A triangle has three sides. The second side is one more than double the first side and the third side is two less than the second side. The perimeter is 110 cm. How long are the sides?

6.   Simplify each expression. Solve each equation. Show your work.

    a. $4x = 24$ c. $4x + 2y + 5x - 2x + y - 4x + 7$

    b. $7 -10 + 4z - 2z + 14$ d. $4(x - 1) = 8$

7. Mary Lou is twice George's age and Kate is two years younger than George. The sum total of their ages is 46. How old is each person?