Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_#\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Draw an area model to solve the following. Find the value of the following expression.

* 1. 20 x 40 b. 5 x 324

2. Use any place value strategy to multiply.

1. 3 x 75 b. 4 x 275

c. 8 x 1,206 d. 7,052 x 6

Solve using a model or equation. Solve your work and write your answer as a statement.

3. A movie theater has two rooms. Room A has 7 rows of seats with 14 seats in each row. Room B has three times as many seats as room A. How many seats are there in both rooms?

4. The high school art teacher has 6 cases of crayons with 61 boxes in each case. The elementary school art teacher has 9 cases of crayons 112 boxes in each case. How many total boxes of crayons do both teachers have? Is your answer reasonable? Explain.

5. Last year, Ms. Petersen’s rectangular garden had a width of 4 meters and an area of 32 square meters. This year, he wants to make the garden three times as long and two times as wide.

1. Solve the length of last year’s garden using the area formula. Then, draw and label the measurements of this year’s garden.

**Last Year This Year**

|  |
| --- |
| 32  square meters |

\_\_\_\_\_\_\_\_\_ m

b. How much area for planting will Mr. Petersen have in the new garden?

c. Last year, Mr. Petersen had a fence all the way around his garden. He can reuse all of the fence he had around the garden last year, but he needs to buy more fencing to go around this year’s garden. How many more meters of fencing is needed for this year’s garden than last year’s?

d. Last year, Mr. Petersen was able to plant 6 rows of carrots with 14 plants in each row. This year, he plans to plant twice as many rows with twice as many carrot plants in each. How many carrot plants will he plant this year? Write a multiplication equation to solve. Assess the reasonableness of your answer.