Dominoes and Obaminoes
Mathematical Curriculum Connections

1) The sets of dominoes we are using are called "double-nine" dominoes. Each half of the domino contains 0 – 9 "pips" and there is exactly one domino of every configuration in a set.
   a) Why are there 55 dominoes in a "double-nine" set?
   b) How many dominoes would there be in a "double-six" set?
   c) Can you find a pattern which predicts how many dominoes will be in a "double-n" set where n is any whole number?

(This is closely related to what is often called the "Handshake Problem." See http://www.domino-games.com/faq/How-Many-Tiles-And-Dots-Are-In-A-Dominoes-Set.html

2) The spots on dominoes are called "pips".
   a) How many pips are there in a set of double-six dominoes?
   b) How many pips are there in a set of double-nine dominoes?
   c) Can you find a pattern that predicts of many dominoes will be in a "double-n" set where n is any whole number?

3) What is the area of Obaminoes in units that are the squares that make up half a domino?

4) Using dominoes that are 1" by 2", what would the area of Obaminoes in square inches be?

5) http://www.domino-games.com/domino-rules/ . The "Only 5" and "Only 3" games at Domino-Games.com provide nice ways to work with the idea of multiples.

6) You can play "War" with dominoes - either adding, subtracting or mutiplying the two values on your domino and whoever has the higher value gets both tiles. This helps build arithmetic skills in these areas in a simple, fun, and inexpensive way.

7) This game can be played either with all students or with teachers in the lead positions. One leader is in charge of calling out numbers, while one or two other leaders check answers. The leader would call out any number (within reason) and students would have to look through their dominos to group together those that add up to the number. Keep in mind the students would be using the entire rectangle of the dominos (not just one of the squares) to get the total. There is no minimum or maximum to the amount of dominos the students can use, but it would be helpful to call a number over 12 so that the students do not just grab one domino to be done. (Original game by Jill Manganelli.)

8) This game is played similar to the original game of dominos. The goal is to get rid of all dominos by placing them next to similar dominos. Instead of matching the dominos by the same amount of pips, the first player to go puts down a domino and says an addition or subtraction statement that when added or subtracted from a square would total between one and six. Note that players are using the individual squares inside the dominos instead of the total in the rectangle. The second player can choose either square to put their domino next to, but needs to keep in mind that one square may not work depending on the number being added or subtracted. This game can be played with as few players as two to as many as the entire class. (Original game by Jill Manganelli.)

9) Recognizing the number of pips on a domino without counting reinforces skills that will be useful in the development of multiplication as the pips are arranged in arrays much like those that are used in the introduction of multiplication and area.

10) Dominoes can be used in place of flashcards – helping with math facts likes addition, subtraction, multiplication and fractions.