

## MULTIPLICATION TOSS (AREA DICE GAME)

### Background:

This multiplication game encourages students to use their knowledge of arrays to help them represent different multiplication facts.

### Materials:

- 1 cm grid paper
- 2 dice
- Coloured markers

**WALT:** Use knowledge of multiplication facts to draw accurate arrays

**WILF:** An understanding of the relationship between multiplication facts and their related arrays

**Game Objective:** To be the player who has covered the largest total area

### Instructions:

- Each player chooses a coloured marker (text)
- Players take turns rolling both dice, using the numbers that they rolled to draw the perimeter of a rectangle or square, for example, if they roll a 4 and 6 they can create a rectangle that is 4 x 6 or 6 x 4
- Players should record the equation in the middle of their rectangle, for example,  $4 \times 6 = 24$
- The game ends when players run out of room to draw their rectangles
- The winner is the player who has covered the largest total area

### Alternative rules:

If played in the manner suggested above the game ends when players run out of room to draw their array on the grid.

To extend the game, an additional rule can be introduced that allows players to continue play by partitioning their array into separate smaller arrays.

For example, if the player rolled a 3 and a 4, they would have a choice to make a 3 x 4 or a 4 x 3 array. With the new rule they can choose to partition this array further, say by creating four 3 x 1 arrays or three 4 x 1 arrays or two 2 x 3 arrays, etc.

The aim of this new rule is to help students understanding the relationship between the different multiplication facts.

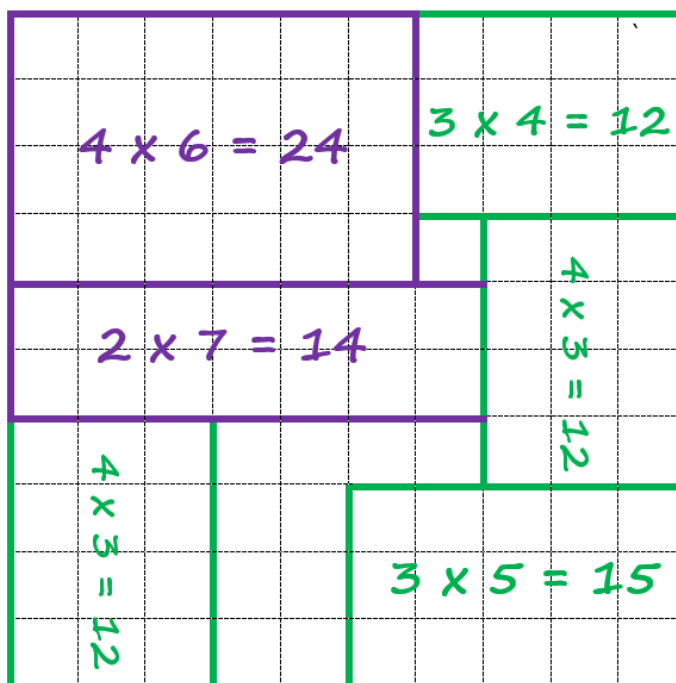


Figure 1: Example completed gameboard

**AREA DICE GAME GRID**

