

## MULTIPLICATIVE BINGO

<b>Level</b>	2 (Age group 8-10)
<b>Resources Required</b>	Pen or pencil Paper (1 per student + 1 for the teacher) 2 dice
<b>Alternate Options for the Resources</b>	A die can be made using these instructions and the example in the Images/Illustrations section: <ol style="list-style-type: none"> <li>1. Drawing 4 equal sized squares horizontally.</li> <li>2. Drawing 2 squares above and below the 2<sup>nd</sup> square on the horizontal line draw in step 1.</li> <li>3. Cutting along the outer edge of the shape and folding along the edges to form a cube.</li> <li>4. Use an adhesive on the flaps to stick the edges together.</li> <li>5. On each face draw dots to represent numbers from 1-6. Use the example in the Images/Illustrations section to determine where each number should go.</li> </ol>
<b>Strand Covered</b>	Numbers and Operations
<b>Targeted Skills</b>	Record, describe and analyze the frequency of outcomes of simple probability involving randomness, fairness, equally and unequally likely outcomes.
<b>Inspired by</b>	<a href="#">Julia Robinson Mathematics Festival</a> , <a href="#">MathPickle</a> - Gordon Hamilton
<b>Time Required</b>	Set up time 30 minutes Game time 20 minutes
<b>Previous Learning Required</b>	Multiplication of numbers 1-10
<b>Support Required</b>	Low supervision

### Rules of the Game:

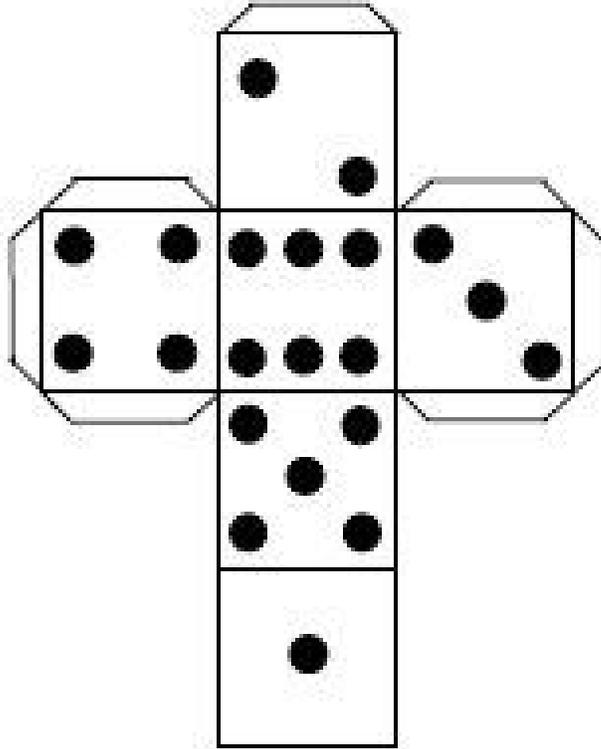
<b>Goal</b>	The first student who crosses out all 6 of their numbers wins.
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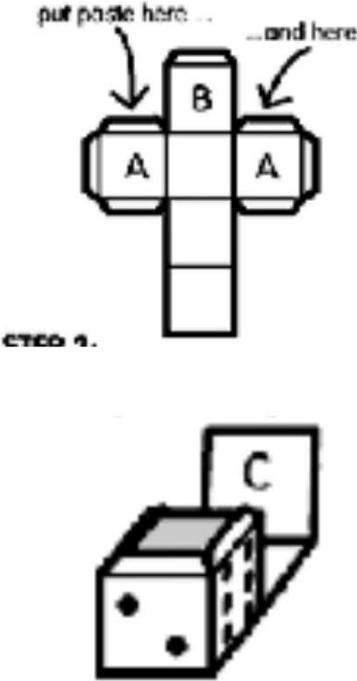
Rules	
<b>Steps</b>	<p>Step 1: The teacher passes out a piece of paper to each student.</p> <p>Step 2: Each student chooses and writes down 6 numbers from 1-40. Students may write the same number more than once.</p> <p>Step 3: The teacher gives one student the two dice.</p> <p>Step 4: This student rolls both dice and announces the two numbers that they roll (e.g., 4 and 5). The student <b>does not</b> announce the product of these two numbers.</p> <p>Step 5: Students calculate the product of the two numbers they hear silently. If the product is one of the numbers on their list, they cross out that number. If that number shows up more than once, they cross out that number <b>only once</b>.</p> <p>Step 6: The teacher should write down on their own piece of paper what the product is so that they can check student answers at the end of the game.</p> <p>Step 7: The student with the dice passes it onto the next student (the teacher decides how the dice are passed around).</p> <p>Step 8: Repeat Steps 4-7 until one student has crossed out all 6 of their numbers.</p> <p>Step 9: The teacher checks this student's list to ensure that the student made no mistakes. If the student did everything correctly, then this student wins.</p> <p>Step 10: Play this game more than once so that students can experiment and make more informed choices with the 6 numbers they choose at the beginning.</p>



Images or  
Illustrations





	<p>Step 1: Make creases along the lines. Flip the shape over so the decorated side is away from you.</p> <p>Step 2: Now bend the sides labeled "A" and apply glue on the two tabs where shown. Fold up the tab Labeled "B" against the glue covered tabs.</p> <p>Step 3: Put some glue on all the remaining tabs, Fold tab "C" over the top of the dice and press against the glue-covered dice.</p> <p>Step 4: Now lay something not too heavy on the dice to hold them in place while they dry.</p> 
<b>Variations of the Game</b>	Step 1: Choose 10 numbers. Step 3: Your marking partner crosses off both the sum and product of two dice if possible.
<b>Enrichment</b>	<ul style="list-style-type: none"><li>• Have students choose 10 numbers instead of 6.</li><li>• Have students calculate and cross out the sum and product of the two numbers that are announced.</li><li>• Create dice with larger numbers (e.g., 7, 8, 9, 10, 11, and 12) and have students choose numbers from 1-150.</li></ul>
<b>Simplification</b>	<ul style="list-style-type: none"><li>• Have students choose fewer than 6 numbers.</li><li>• Create a dice with smaller numbers (e.g., 1, 1, 2, 2, 3, and 3).</li><li>• Have students add the two numbers announced instead of multiple.</li></ul>