

BOUNCING SUMS

Level	2 (Age group 8-10)
Resources Required	Soccer ball (2) Permanent marker
Alternate Options for the Resources	<p>Instead of a soccer ball, the teacher can use any ball that numbers can be written on.</p> <p>If the teacher does not have a ball, they can have students roll dice instead of kick soccer balls. Teachers can make a die using these instructions and the example in the Images/Illustrations section:</p> <ol style="list-style-type: none"> 1. Drawing 4 equal sized squares horizontally. 2. Drawing 2 squares above and below the 2nd square on the horizontal line draw in step 1. 3. Cutting along the outer edge of the shape and folding along the edges to form a cube. 4. Use an adhesive on the flaps to stick the edges together. 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.
Strand Covered	Numbers and Operations
Targeted Skills	Calculate products of 2 digit numbers by 1 digit numbers. Addition
Inspired by	Prodigy , Julia Robinson Mathematics Festival - Gordon Hamilton
Time Required	5 minutes for the game 15 minutes to make the dice, if needed
Previous Learning Required	Multiplication of single digit numbers Knowledge of numbers 1-100
Support Required	Medium supervision

Rules of the Game:

Goal	The team with the highest number at the end of the game wins.
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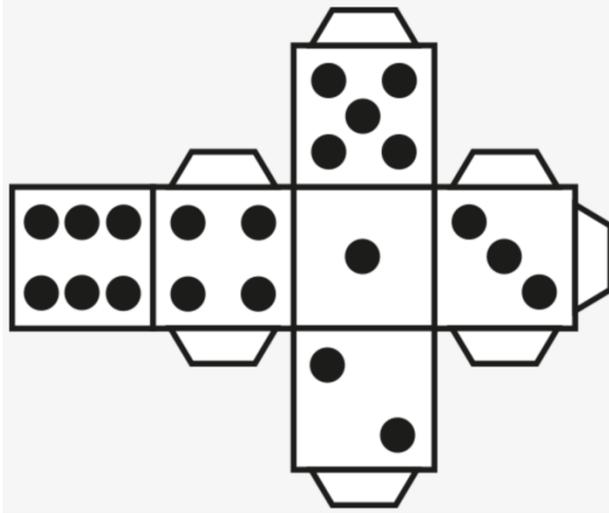


Steps	<p>Step 1: The teacher/adult/facilitator writes numbers from 0-9 on all of the faces of two soccer balls. See Images/Illustrations for an example.</p> <p>Step 2: The teacher splits the class into two teams.</p> <p>Step 3: The teacher gives a soccer ball to one student on each team.</p> <p>Step 4: When the teacher says “Start”, the student who started with the ball kicks it to another student on their team. The student who receives the ball looks down at the ball and looks at the number that is facing upwards.</p> <p>Step 5: The student with the ball kicks it to another student on the team. The student who receives the ball looks down at the ball and looks at the number that is facing upwards. The student either adds this number to or multiplies this number with the current team’s total.</p> <p>Step 6: Repeat Step 5 until time runs out.</p> <p>Step 7: The team with the highest number at the end of the game wins.</p>
Simplification	Instead of a soccer ball, the game can be played with dice.



Images or Illustrations

Example of a die:



Label the faces of a soccer ball like this:



Variations of the Game

Enrichment

- Use larger numbers.
- Allow students to use subtraction and division. In this game, each team starts with 1000 points and is trying to get as close to 0 as possible.

Simplification

- Use only small numbers.
- Have students only use addition.



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| | <ul style="list-style-type: none">• Allow students to do work out on paper. Allow more time for this version of the game. |
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