

GOOOOAAALLL!

Unit 3

This game is for 2 or more players.

Materials: table, 4 number cubes

Instructions

Step 1 Ask your teacher for a copy of the table shown on the back of this card.

Step 2 Start with the first goal in the table. Roll four number cubes and write the results in the Numbers column of your table. Each player should complete a roll before the next step.

Step 3 On scratch paper, use the numbers you rolled to create a numerical expression whose value is as close as possible to the goal number. You may use the four operations (addition, subtraction, multiplication, and division), write a number as an exponent, or group two numbers using parentheses. You may not use any of these more than once for any goal number, but you may use a multiplication symbol or parentheses to indicate multiplication. The expression $2(3 \times 4)^2$ is an acceptable expression.

For example, if 1, 2, 4, and 5 are rolled, here are some possible expressions:

$$5 \times 2(4 - 1) = 30$$

$$5(2 + 1) + 4 = 19$$

$$4^2 + 5 - 1 = 20$$

$$1(2^4 + 5) = 21$$

$$5^2 - 4 + 1 = 22$$

$$5(4 + 1) - 2 = 23$$

Step 4 Write both the expression that you chose and its value in your table. Then find the distance from the value to the goal, and write it in the table. Remember, the distance between two numbers on a number line is the absolute value of the difference of the numbers. For example,

$$|25 - 23| = 2$$

Goal	Numbers	Expression	Value	Distance from Goal
25	1, 2, 4, 5	$5(4 + 1) - 2$	23	2

Step 5 Repeat Steps 2–4 for each of the remaining goals.

Step 6 After you have completed all rows of the table, find the total of the Distance from Goal column and write it in the table. The winner of the game is the player with the least total in the Distance from Goal column.

Goal	Numbers	Expression	Value	Distance from Goal
87				
92				
58				
75				
65				
15				
40				
130				
27				
225				
			Total:	