

Amazing Math Games II



When it comes to practicing math or memorizing math facts, it's hard to find a better method than playing a game. For these clever games, the second set in our series, just gather a deck of cards, dice, paper and pencil, and a few other household supplies. What a fun way to learn!

Close, closer, closest

See who can multiply two numbers and get closest to the target.



You'll need: paper, pencil, bag, deck of cards (face cards removed, ace = 1)

1. On squares of paper, write the numbers 5, 10, 15, 20, 25, and so on to 100. Put the slips in a bag.
2. Shuffle the cards, and deal five to each player.
3. One player picks a number from the bag. Then, all players choose two cards from their hand that, when multiplied together, are close to the number drawn. Score a point by coming closest (or matching exactly). In a tie, both players get a point. *Example:* If 20 is drawn, one player might use $6 \times 3 (= 18)$, and another may try $5 \times 5 (= 25)$. The point goes to the first player because 18 is closer to 20 than 25 is.
4. Return the number to the bag, and set aside the cards used. Deal two new cards to each player, and play again. The first to score 10 points wins.

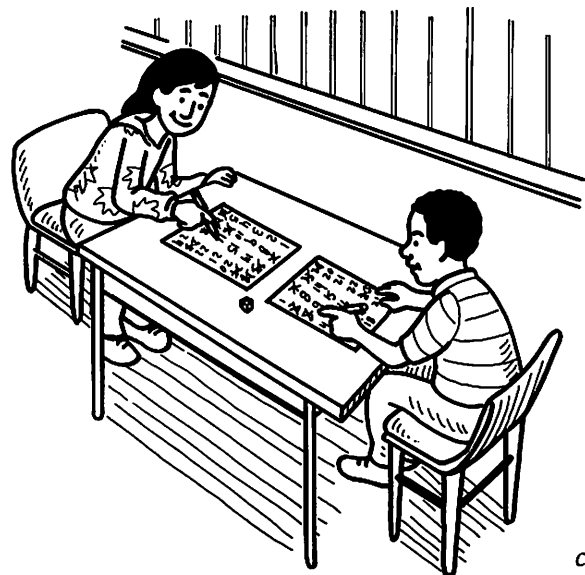
Multiple magic

In this game, the object is to cross off all of your numbers—as you practice finding multiples.

You'll need: paper, pencil, die

1. Each player writes the numbers 1–24 on a sheet of paper.
2. Everyone crosses off the *prime* numbers greater than 6 (7, 11, 13, 17, 19, and 23). *Note:* Prime numbers are divisible only by 1 and themselves.
3. The first player rolls a die and crosses off all the multiples of the number rolled. If she rolled a 3, for instance, she would cross off 3, 6, 9, 12, 15, 18, 21, and 24. *Note:* If a player rolls a 1, she only crosses off the 1.
4. Take turns until someone wins by crossing off all her numbers.

Variation: Play with numbers up to 60.



continued



Inch by inch

Who will draw the longest line and win the race? Play this game to find out.

You'll need: paper, tape, plastic toy figures or animals, deck of cards (face cards removed, ace = 1), ruler, pencil

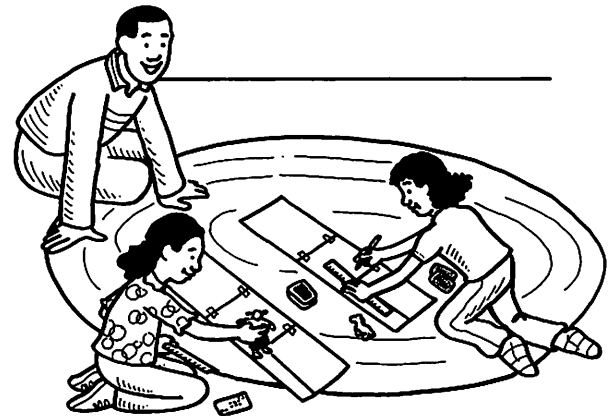
1. Have each player tape together three sheets of paper to make a long strip and place a plastic toy at the bottom edge. Shuffle the cards, and place the deck facedown.
2. The first player takes the top card. Using the ruler, she draws a vertical line from the bottom of her paper, using the number shown on the card to determine the number of inches. For a 7, she would draw a 7-inch line. She then moves her toy to the top of that line. *Idea:* Play with centimeters instead of inches.
3. Take turns picking cards and drawing lines. Each time, add to the line already started.

Remainder reminder

This bingo game is a fun way to work on division.

You'll need: paper, pencil, deck of cards (face cards removed, ace = 1), dice, tokens (beans, buttons)

1. Each player draws a 5 x 5 bingo board on paper and randomly fills it in with numbers 0–8 (but mostly numbers under 5). Place the deck of cards facedown in a stack.
2. The first player rolls two dice and decides which two-digit number to form. (If he rolls 2 and 4, he can pick 24 or 42.) He then turns over a card.
3. Everyone divides the number announced (say, 42) by the number on the card (5). If there is a remainder ($42 \div 5 = 8$, remainder 2), players use a token to cover one spot on their bingo cards with the remainder number (2). If the number divides evenly (no remainder), cover a 0.
4. Take turns rolling the dice and turning over a card for everyone to use. The first player with five in a row (horizontally, vertically, or diagonally) wins.



4. To win, reach the opposite end of the paper first.

Variation: Use the fraction cards from “The whole pie” game below. Pick both a fraction card and a playing card on each turn. Add the numbers together, and draw a line the resulting number of inches—for example, $7\frac{1}{4}$ inches.

The whole pie

See who can complete an entire pie first. But wait, you have to work on equivalent fractions as you go!

You'll need: 2 paper plates for each player, markers, scissors, 38 index cards

1. Each player decorates one paper plate like a pie, cuts it into eight equal slices, and labels each slice $\frac{1}{8}$. He should leave his second plate whole and label it 1.
2. On 10 index cards each, write the fractions $\frac{1}{8}$, $\frac{1}{4}$, and $\frac{3}{8}$. Then, on



2 index cards each, write $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, and $\frac{7}{8}$. Shuffle the 38 fraction cards together, and stack them facedown.

3. The first player takes the top card and starts building his pie. For example, if he draws $\frac{1}{4}$, he would put two of his $\frac{1}{8}$ pieces into his pie (the plate marked 1).
4. Players take turns drawing cards and adding to their pies until one person completes his pie (exactly—he can't go over) and wins the game.