



# FACTOR BINGO

**Factors** are numbers you can multiply together to get another number. The **product** is the result you get when multiplying two numbers together. For example,  $2 \times 8 = 16$ . The factors are 2 and 8, and the product is 16.

A number can have many factors. For example, what are the factors of 16?  $2 \times 8 = 16$ , so 2 and 8 are factors of 16.  $4 \times 4 = 16$ , so 4 is a factor of 16.  $1 \times 16 = 16$ , so 1 and 16 are factors of 16. So, 1, 2, 4, 8, and 16 are all factors of 16!

$$\begin{array}{c} \mathbf{9} \times \mathbf{5} = \mathbf{45} \\ \swarrow \quad \searrow \qquad \uparrow \\ \text{Factors} \qquad \qquad \text{Product} \end{array}$$

Understanding factors makes it easier to work with fractions and find patterns in numbers. Recognizing patterns is very helpful and important when solving all kinds of problems.

**THE GOAL:** Practice multiplying factors as you play bingo!

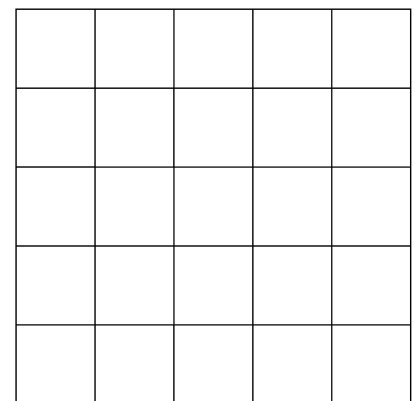
## WHAT YOU NEED:

- Deck of Cards
- Pencil
- Paper
- Small items like beans, cereal, or pasta to cover bingo card (optional)
- Calculator (optional)

## GETTING STARTED:

First remove all face cards and the joker from the deck of cards. The ace will represent 1. Then, create your bingo cards by drawing a 5x5 grid a piece of paper, like this:

Next, fill in the grid with numbers from 1-81. You can use any numbers you want, but think carefully about the numbers you choose. A deck of cards includes the numbers 1-10 (with ace representing 1), so all numbers on your card should be products of those numbers. For example, do not use 33 because the factors of 33 are 1, 3, 11, and 33 - there is no way for the numbers in the deck of cards to produce the number 33. Create a different number grid for every player.

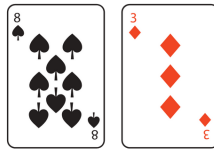




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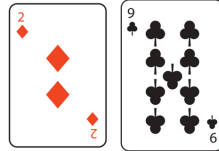
## HOW TO PLAY:

Player 1 draws:



$8 \times 3 = 24$ , so all players check and mark 24 on their bingo card.

Player 2 draws:



$2 \times 9 = 18$ , so all players check and mark 18 on their bingo card.

Play continues until someone gets a bingo!

To play, player one will draw two cards from the deck. Multiply the numbers on the card to find the product. You can use a calculator if you need help. All players check their card and cover the product with an object like a bean, or cross out the number on the card. Each player takes a turn until the first person to cover 5 squares in any direction wins!

If you run out of cards before someone gets a bingo, reshuffle and keep going until you have a winner.

## MORE TO EXPLORE:

- For younger players, you can play Addition or Subtraction Bingo the same way - just add or subtract the numbers instead of multiplying!
- Learn more about factoring:  
<https://youtu.be/ONvLtTwnUHs>

### READ ALL ABOUT IT!

The Best of Times: Math Strategies that Multiply by Greg Tang

## STANDARDS:

This activity aligns with Oklahoma Academic Standards for Math:

- 3rd Grade Numbers and Operations 3.N.2.1, 3.N.2.2
- 4th Grade Numbers and Operations 4.N.1.1

### DID YOU KNOW?

The oldest known multiplication tables were used by Babylonians 4,000 years ago!



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