

INSTRUCTIONS FOR FACTORS/MULTIPLES EDITION

#32977 Factors/Multiples (96 cards)



OBJECT: Each side of a FACTORS card shows two numbers from the multiplication table. Find the common factor to both numbers on the card and state the multiplication facts.

How To PLAY: Work alone or together with friends to find the common factor. Can be used as an individual or group activity.

Cards have a self-check feature (shows answers to card on reverse) to allow practice and review of multiplication facts.

All 9's are filled in with red



THREE TYPES OF FACTORS CARDS. Cards have red, white or yellow corners. The two numbers on a white-cornered card are one multiple of the common factor apart. The two numbers on a red-cornered card are two multiples apart, and the two numbers on a yellow-cornered card are three multiples apart.



$$\begin{array}{l} 6 \times 6 = 36 \\ 6 \times 7 = 42 \end{array}$$

one multiple apart



$$\begin{array}{l} 5 \times 7 = 35 \\ 5 \times 9 = 45 \end{array}$$

two multiples apart



$$\begin{array}{l} 9 \times 6 = 54 \\ 9 \times 9 = 81 \end{array}$$

three multiples apart

HELPFUL HINT: Once you recognize this pattern of multiples, here is a way to easily find a common factor:

White Corners: Subtract the two numbers ($42 - 36 = 6$)

Red Corners: Subtract the two numbers, divide by 2 ($45 - 35 = 10$, $10 \div 2 = 5$)

Yellow Corners: Subtract the two numbers, divide by 3 ($81 - 54 = 27$, $27 \div 3 = 9$)

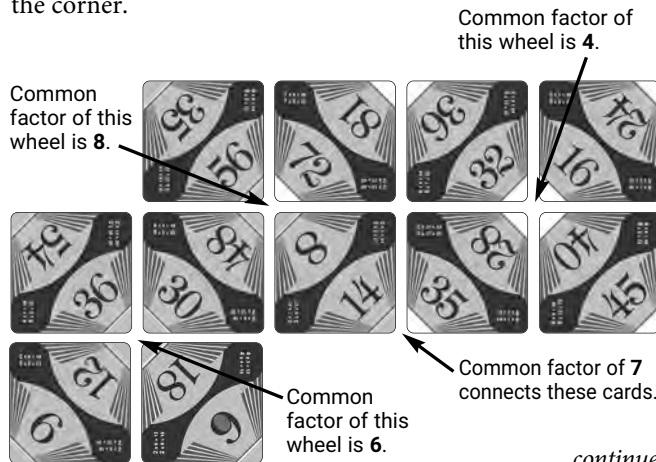
FUN FACTOR ACTIVITIES

FACTOR WHEELS. Building Factor Wheels is a great way to strengthen group problem-solving skills! Players work together to create wheels of numbers that share a common factor. (Can be an individual or group activity.)

The four numbers in the Factor Wheel created below have a common factor of 9. Students can continue placing more cards around the edges to build more wheels. Remember, if the numbers are touching, they must have a common factor, and wheels may not contain two identical numbers.



MAKE FACTOR "SNAKES" OR "CHAINS" AND OTHER FUN SHAPES. Divide students into groups of four. Distribute all of the Factors cards equally. Students take turns and place cards to form connected Factor Wheel shapes. If the numbers are touching, they must have a common factor. You can use any cards with the same common factor, regardless of the color in the corner.



continued

MAKE PLAY MORE CHALLENGING!

- Show the class a card and specify the common factor(s) you want students to look for to correspond with your curriculum. *Example: "Can 6 be a common factor?"*
- Deal 12 cards to each student/group; players race to see who can build the most Factor Wheels in five minutes. Student or group with the most correctly-completed wheels wins.
- Have students keep score! Each wheel has a point-value equal to its common factor. The student or group with the highest total score becomes class champion and that is the score to beat the next time the class does this activity. Students can write the common factor on pieces of paper and place them in the center of their wheels to help keep track of points.
- Distribute 24 cards to each group and challenge students to make nine connected Factor Wheels, the maximum number of wheels possible when using that number of cards.
- Have students build a wheel where the common factor is two. From one of the other corners, then make a wheel with a common factor of three. Playing off the three wheel, students make a wheel with the common factor of four, continuing, if possible, to a common factor of nine.
- Give each group of students six cards. Call out a common factor, and ask students to create one factor wheel. Students that might not be able to complete their wheel can trade card(s) with a neighbor.

PLAY FOUR CARDS UP. Deal four cards onto the table. Players race to find a common factor that will apply to the maximum number of cards. First player to correctly state multiplication facts "wins" those cards. Player with most cards at the end of play wins.



Common factor of 3 will claim the cards in the box.



More 24° Game activities at [24game.com](https://www.24game.com) - "Teacher's Tools" page.

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(Age 6+) #31976

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