



Activity—Using Patterns

Editions used: Add/Subtract; Multiply/Divide (3 dot cards only)

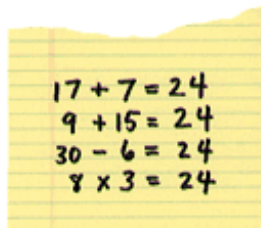
One of the most important skills used in the 24 game is the ability to detect patterns. When introducing these cards, encourage students to think of the patterns that make 24, for example:

$$12 + 12; 26 - 2; 20 + 4; 8 \times 3$$

As a classroom activity, have each student in the class give one pattern that makes 24. You may want to post common patterns on the wall to help students. Students can practice patterns by doing one of the following activities:

1) Split the class into four groups and have them stand in line. The first student in each line should have a piece of paper and a pencil. Write a number on the board. The first student must write on the paper how to make 24 with the number given. Then that student writes another number, 1 through 48, and passes the paper to the next student who repeats the process. This continues until all children in the line have had an opportunity to play.

Example: Teacher writes 17. The students' paper might look like this:



2) As a whole-class activity—have all the students stand. The teacher calls out a number and chooses a student to finish the pattern. That student then gives the next number, 1 through 48, and chooses someone to finish the pattern. Students sit down after answering. The activity is complete when all of the students are sitting. Time the exercise. Next time, try to decrease the amount of time it takes.

3) Students work in groups of four. Give each group six cards. The teacher calls out a pattern, for example, $15 + 9$. If a group has a card that can be solved by that pattern, they may cover it with a slip of paper with the pattern written on it. The game continues until one group has covered all of their cards.

4) Choose a number, 1 through 24, and write it on the board. Have students find all the ways to make 24 with the chosen number. **Example:** Chosen number is 6.

$$\begin{aligned} 6 \times 4 &= 24 \\ 18 \div 6 &= 24 \\ 30 - 6 &= 24 \end{aligned}$$