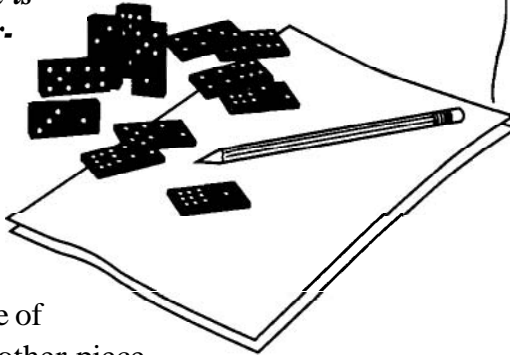


# Domino ESP

*Fractions can be "proper" or "improper." The value of a proper fraction is less than 1, and the value of an improper fraction is more than 1. Learn the difference between proper and improper fractions while you test your psychic powers.*



## MATERIALS

pencil  
2 pieces

dominoes

## Game Preparation

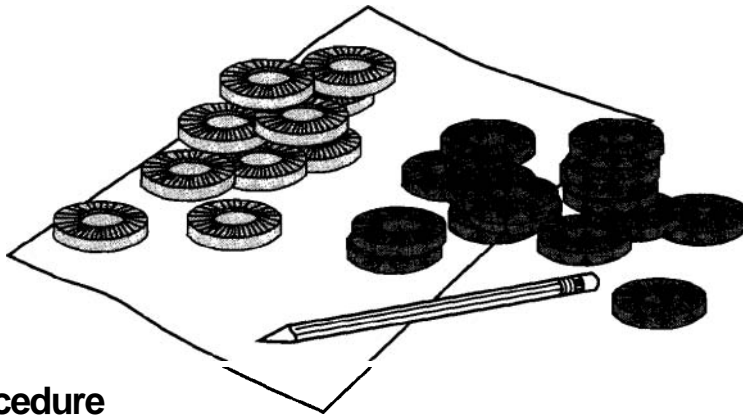
1. Write "Correct" on one piece of paper and "Incorrect" on another piece of paper.
2. Remove all the dominoes that are blank on one or both ends from the set.
3. Mix the remaining dominoes and place them facedown vertically in a horizontal row on the table.

## Game Rules

1. Put your hand on the first domino on the left end of the row. Use your psychic powers to guess whether the dots on the other side of the domino represent a proper fraction or an improper fraction. The number of dots on the top end of the domino is the numerator, and the number of dots on the bottom is the denominator.

# Subtraction Chip Trading

*Practice subtracting mixed numbers that have common denominators.*



## MATERIALS

poker chips (yellow and blue, or any other two colors) or nickels and pennies  
pencil  
paper

## Procedure

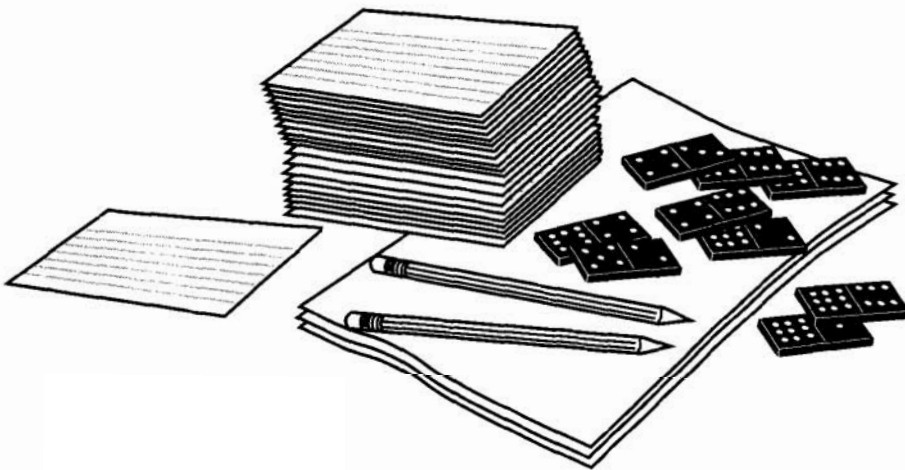
1. To subtract mixed numbers that have common denominators, first change the "minuend" (the number you are subtracting from) to chips or coins. Use yellow chips or nickels to represent the whole number and blue chips or pennies to represent the numerator of the fraction. For example, in the problem  $4\frac{3}{5} - 1\frac{4}{5}$ , the mixed number  $4\frac{3}{5}$  is represented by four yellow chips or nickels and three blue chips or pennies. The common denominator is 5, so five blue chips are equal to one yellow chip.
2. To subtract  $1\frac{4}{5}$  from  $4\frac{3}{5}$ , take away one yellow chip and four blue chips. Since you don't have four blue chips, trade one yellow chip for five blue chips. This gives you three yellow chips and eight blue chips (or  $3\frac{8}{5}$ ). Now you can take away one yellow chip and four blue chips. There are two yellow chips and four blue chips remaining. So  $4\frac{3}{5} - 1\frac{4}{5} = 3\frac{8}{5} - 1\frac{4}{5} = 2\frac{4}{5}$ .

# Domino Match

The "reciprocal" of a number is a number that can be multiplied by the original number to give a product of 1. For example, the reciprocal of 5, or  $\frac{5}{1}$ , is  $\frac{1}{5}$ , the reciprocal of  $\frac{1}{2}$  is  $\frac{2}{1}$ , or 2, and the reciprocal of  $\frac{2}{3}$  is  $\frac{3}{2}$ . Play this game to practice finding the reciprocal of a fraction.

## MATERIALS

dominoes  
2 pencils  
21 index cards  
several pieces of paper  
2 players



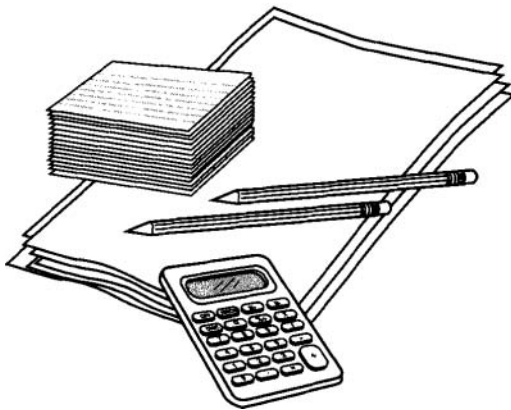
## Game Preparation

1. Remove all the dominoes that are blank on one or both ends from the set.
2. Write one of the following numbers on each of 21 index cards:

1	4	$\frac{2}{2}$	$\frac{2}{5}$	$\frac{3}{4}$	$\frac{4}{4}$	$\frac{5}{5}$
2	5	$\frac{2}{3}$	$\frac{2}{6}$	$\frac{3}{5}$	$\frac{4}{5}$	$\frac{5}{6}$
3	6	$\frac{2}{4}$	$\frac{3}{3}$	$\frac{3}{6}$	$\frac{4}{6}$	$\frac{6}{6}$

# Order

*Play this noisy game to learn how to put fractions in order from smallest to largest.*



## MATERIALS

2 pencils  
15 index cards  
several pieces of paper for each player  
calculator  
2 players

### Game Preparation

Write one of the following fractions on each of 15 index cards:

$\frac{1}{2}$	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{1}{4}$	$\frac{3}{4}$
$\frac{1}{6}$	$\frac{5}{6}$	$\frac{1}{8}$	$\frac{3}{8}$	$\frac{5}{8}$
$\frac{7}{8}$	$\frac{1}{12}$	$\frac{5}{12}$	$\frac{7}{12}$	$\frac{11}{12}$

### Game Rules

1. Shuffle the cards and deal each player five cards. Place the remaining cards facedown in a stack in the center of the table.
2. Each player places his or her cards facedown in a row in front of himself or herself.
3. One player shouts, "Ready, set, go!" and both players turn over their cards and try to put them in order from the smallest fraction (only one on each card) to the largest.