

Pair Down

OBJECT OF THE GAME: Players race to pair up all of their same-answer flashcards.

YOU'LL NEED: two sets of 16 flashcards, each containing eight same-answer pairs

INSTRUCTIONS:

1 Each player shuffles a set of 16 flashcards containing eight same-answer pairs. The players divide their decks in half, setting up the first eight flashcards faceup into two horizontal rows in front of them. Then they place the remaining eight flashcards faceup over the first set, so there are eight piles of two faceup flashcards in front of each player.

2 At the signal (count together "1-2-3 GO!"), both players start gathering pairs of flashcards with the same answers from their own faceup card piles. When a pair is made, it reveals two more flashcards underneath, which can now be paired with the other cards. Players keep their pairs in a nearby pile.

3 The first player to make pairs with all his or her flashcards wins. If there is a calculating error (check pairs after the game), the other player wins. If a player gets stuck with no pairs showing, he or she loses. If both players get stuck, no one wins and they start over.

VARIATION

For advanced players, try a competitive game of *Pair Down*. Shuffle the 32 flashcards (16 same-answer pairs) all together and then split the deck so that each player gets 16 cards. Players set up the flashcards as described above. On the count of three, players gather pairs from both boards. The player with the most pairs when the boards are clear (or when no more pairs are showing) wins.

For playing-card basics, choosing who goes first, checking answers, and more, see pages 4-5.

Tic-Tac-Facts

OBJECT OF THE GAME: Players solve problems to earn turns at tic-tac-toe.

YOU'LL NEED: 10 or more addition and subtraction flashcards in separate piles, pencil and paper

INSTRUCTIONS:

1 The first player draws a traditional tic-tac-toe board. The first player is "+" for this game; the other player is "-" (instead of X and O).

2 The first player shuffles the addition flashcards and places them facedown by his or her side; he or she shuffles the subtraction flashcards and places them facedown beside the other player.

3 Players earn turns putting a "+" or "-" symbol in any one of the nine squares. The aim is to get three in a row across, up and down, or diagonally. To earn a turn, each player must first correctly answer the top flashcard equation in the addition or subtraction pile by his or her side. If the player gets an incorrect answer, he or she misses his or her turn.

4 The player who gets three in a row wins. Now the other player is "+" and goes first; he or she shuffles and switches the piles, and starts another game.

VARIATION

To speed up the calculations, play *Tick-Tock-Facts*—each player gets 5 seconds (as timed by the other player) to answer the problem.

Add That Garbage!

OBJECT OF THE GAME: Players hunt for the answer 7 among the flashcards in a basket.

YOU'LL NEED: set of 36 addition flashcards (more or less), including only one with the answer 7; paper recycling bin or any box or basket

INSTRUCTIONS:

- 1 Dump the flashcards in one basket and mix well.
- 2 Without peeking inside the basket, the first player picks out one addition flashcard at a time, answers the problem, then throws it aside. The object is to find the flashcard with the answer 7.
- 3 If the first player picks seven cards without getting the answer 7, the second player takes a turn.
- 4 The first player to find the flashcard with the answer 7 wins.

VARIATION

Choose other answers to hunt for and assign each answer a certain number of points (e.g., 10 points for the answer 10). Players switch after earning any points or making a calculating error. The player with the most points when the basket is empty wins.

For playing-card basics, choosing who goes first, checking answers, and more, see pages 4-5.

Take-Away Toss

OBJECT OF THE GAME: Players attempt to toss the greatest number of answered flashcards in their own basket.

YOU'LL NEED: set of 30 subtraction flashcards (more or less); two small baskets or boxes; clock or timer

INSTRUCTIONS:

- 1 Two players stand facing each other about six feet apart. In front of each of player is a basket in which the opposing player attempts to toss flashcards to score points.
- 2 One player is the first card-tosser; the other is the referee. The card-tosser holds all the flashcards facedown.
- 4 On the signal, the tosser turns over his or her first flashcard and solves the subtraction problem.
- 5 If the answer is correct, the referee puts two arms straight up, allowing the player to turn and toss the flashcard into his or her basket. If the flashcard goes in, he or she gets a point.
- 6 If the player's answer is incorrect or the flashcard misses the basket, the referee crosses his or her wrists at chest-level. The players switch roles.
- 7 The game ends when all flashcards have been pitched at the baskets. Whoever gets the most points (flashcards in the basket) wins.

VARIATION

Players can also play *Add Toss* using addition flashcards and following the rules above.

Memory Flash

OBJECT OF THE GAME: In this flashcard version of the popular game *Concentration*, players collect pairs with the same answers to win.

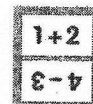
YOU'LL NEED: 16 flashcards—eight same-answer pairs (e.g., $4 + 3$ and $6 + 1$)

INSTRUCTIONS:

- 1 The player who goes first shuffles the flashcards and places them facedown into a grid—four rows vertical, four rows horizontal.
- 2 The first player flips over one flashcard in the grid and calculates the answer, then flips over another flashcard and calculates the answer, saying it out loud. The object is to match two flashcards with the same answer.
- 3 If the player gets a match (and answers correctly), he or she takes the flashcards and goes again. If the player doesn't get a match or gives an incorrect answer, he or she flips the flashcards back over and the second player gets a turn.
- 4 The game continues as players take turns to find all the matches. The game is over when all flashcards are gone from the grid; the player with the most matches wins.

VARIATION

If players need more challenge, try *Extreme Memory Flash*—use 24 cards (12 same-answer pairs). Each player gets a five-second time limit for calculations, timed by the other player.



All flashcards on pages 25–48 include at least one same-answer pair except 0 in addition and 12 in subtraction.

Who goes first?

Suggestion: Play *Guess the Equation*

1. A game leader thinks of a single-digit addition or subtraction equation such as $4 - 3 = 1$.
2. Players take turns guessing the equation. Players must be sure to supply the full equation, including the answer.
3. The leader may provide hints such as "higher," "lower," and "one number right" to steer players closer to the equation.
4. The first player to guess the equation goes first.

For playing-card basics, choosing who goes first, checking answers, and more, see pages 4–5.

Slap You Five

OBJECT OF THE GAME: Players race to be the first to slap the flashcards that equal 5, and win the pile.

YOU'LL NEED: set of 36 flashcards, including five or more flashcards with the answer 5

INSTRUCTIONS:

- 1 Two players sit facing one another. One player is the dealer. The dealer shuffles the flashcards and divides them into two even facedown piles, one for him- or herself and one for the other player. The players hold their pile of cards facedown in their hands.
- 2 Starting with the dealer, the players take turns discarding their top flashcard into a faceup pile between them.
- 3 With each discarded flashcard, both players race to calculate the answer in their heads. The object is to "slap" (quickly place a hand over) the flashcard if the answer is 5. The first to slap the flashcard gets the pile; that player puts the pile at the bottom of his or her handful of flashcards and takes the next turn.
- 4 If a player slaps the pile with another flashcard answer besides 5, the other player gets the pile.
- 5 The player with the most flashcards at the end of a designated time period wins.

VARIATION

Add money skills practice to this game by playing "Slap You Fives." Along with flashcards, distribute play money (which can be bought in any party goods store) so that each player gets a facedown pile of about fifteen \$10 and \$20 bills, and at least five \$5 bills. To discard, alternate between flashcards and bills; with each bill, call out the total dollar amount. Five-dollar bills get the slap. As in the game rules above, the fastest slap keeps the pile, and a wrong slap awards the pile to the other player.



The following flashcards in this book have the answer 5:

$0 + 5$, $1 + 4$, $2 + 3$, $3 + 2$,
 $5 + 0$, $12 - 7$, $11 - 6$, $10 - 5$,
 $9 - 4$, $8 - 3$, $7 - 2$, $6 - 1$.

FAIR PLAY TIP

Players must keep their hands on the table at their sides while calculating the answers.

Addition

Show What You Know About...

Addition

List three or more pieces of advice you would give to a friend who was stuck on an addition problem.

DRAWING MATH

Directions: Draw a picture to illustrate the following problem. Then solve it.

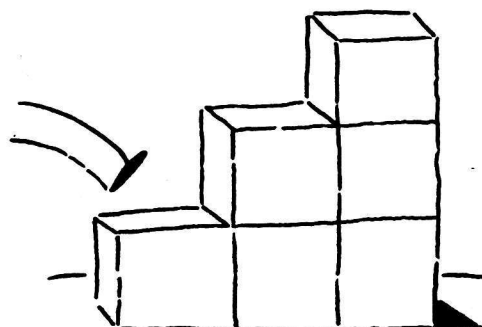
Problem: On her way out of Bernie's Bargain Basement, Trish counts her change. She has 15¢ left. She also has a piece of candy that she's bought for 25¢ and a pencil that she's bought for 10¢. How much money did she start with before she entered the store?

How can the equation $6 + 6 = 12$ help you solve the problem $6 + 7 = ?$ What other addition problems can it help you to solve?

Explain how understanding place value can help you to solve an addition problem like $36 + 25 = ?$

How can the equation $3 + 5 = 8$ help you find the answer to the problem $30 + 50 = ?$ Explain your thinking.

DRAWING MATH



Problem: See how this stairway is made up of cubes? How many more cubes would you need for a total of 9 steps? Draw a picture to help you solve the problem. Then explain how else you could solve it.

How are the addition problems $5 + 9$ and $9 + 5$ alike? How are they different? Write a word problem to illustrate each.

Is it always possible to check your answer to an addition problem (such as $12 + 25 = 37$) by using subtraction? Why or why not? Explain what you think.

What happens when you add zero to a number? Why is that?

Luvenia opened her math book and found that the sum of the facing pages was 243. What pages did she open to? Explain how you know.

What are you actually doing when you "regroup"? Explain.

Explain the steps you would take to solve the equation $355 + 626 = ?$