

# Gordon's Games

(original copyright,1977, under the name "Two-Up".)

## INTRODUCTION, to Parents and Teachers:

Educational games such as these can change the work one must sometimes do to learn into enjoyable play.

For children, games can give immediate value to what children know and are learning. They will be played with an intensity not usually aroused by worksheets and flash cards.

Games also offer an early opportunity to learn to play fairly, and to win, or lose, in a manner that will not offend playmates, in a spirit of good fun.

The nature of Gordon's Games allows children, from about age four to nine, to use their knowledge of simple arithmetic as they work out their own moves and check their opponent's moves. There are some obvious and not so obvious strategies for winning that require the use of memory and logical thought as well.

Of course luck is always involved to aid the less skilful.

Almost all the games can be played by two players using a set of twenty cards, or similar objects, in which the numerals 0 to 9 appear twice. In some games it is possible to include a third or fourth player, but not always desirable.

The blank card sets you'll need are inexpensive to purchase or easy to make. A call to a local store let me know that \$7.50 Can. would have bought 200 cards, enough to make 10 sets, or enough sets for 20 children to play at one time.

I made my cards out of Bristol board sheets, a thick, stiff paper product that felt pen ink will not show through. The cards don't have to be fancy but you shouldn't be able to look at the backs and easily identify the card.

Don't be fooled by the simplicity of the cards. Children enjoy the games. They don't see them as work, or drill activities. They ask to be allowed to play them. The games are great for free time at school, for rainy or cold days when children can't go out, or more structured use during Arithmetic period.

I have been a classroom teacher since 1960. Up until 1968 I taught classes from Grade 4 to 7. Since then I have taught Kindergarten to Grade 3, ages 4 to 9. I've majored in Math during the university years leading up to my B.Ed., and Early Childhood Education for my M.Ed.

The games were first started in the 70's. I've used them from K to Grade 3. Most of the games were first tried out on my own children, or my wife (who did the final edit on this book).  
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If you have any questions, suggestions, or comments, address an email to **@telus.net** but first put **m.games** before it. (This address is split to attempt to foil programs which gather addresses for sale to junk mailers.)

**Some points to refer to:**

1. For most of the games the players may choose to end their game in a way not described, and that is permitted.
2. Most games are more enjoyable when the player who scores a point is allowed to keep the turn until a point is not scored.  
This can be a big disadvantage in some situations, especially if there is a big difference in the abilities of the players. Like many of the rules, this can be changed.
3. The numerical goals required by many games must be chosen from within certain limits, but in some cases the limits can be changed to suit the players or time restraints.
4. Addition and subtraction games can be made more difficult by taking out the zero cards. Similarly the ones cards may be taken out in the multiplication games.  
The range of goals is reduced if these cards are removed.
5. The games that involve matching, counting, and comparing will be described first. Ages that each might suit will be given and those for the youngest children will come first. The ages given are only estimates so don't be bound by them.
6. The basic addition game will be given next, in some detail. Adults intending to use any of the games after it should play this game first, or at least study it carefully.
7. There's a lot more adding games than subtracting games, but the adding games may require one to subtract.
9. Don't forget to look at the back of the book of rules for other games and activities related to Arithmetic and Language skills, including some games for a large group.

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**If you have any comments, questions, suggestions, please contact  
the author at one of the addresses given on the first page.**

**I'm sure there are more games or variations yet to come.**

**I've tried to keep to the KISS principle (*Keep it simple s \_\_\_\_\_*)**

**with this set of games. They aren't high tech, but they are inexpensive  
and they require very little power and upkeep.**

### **Making The Cards:**

I used a 8 1/2 by 11 in. stiff and thick paper product that was white on one side. I cut it to make 4 strips across, and then cut 4 cards out of each strip, making 16 cards from one sheet. 20 cards are needed for one set in almost all the games in this book.

For younger children I doubled the size of the cards.

You will need extra cards. They get lost or damaged at times.

Sometimes you may want to add extra number cards to a set.

Make large numbers and put a line at the bottom of the card for 6 and 9.

Don't let the line touch the numerals.

Don't worry about children not being able to read upside down. Unless you have some special cases, it is marvellous how they can stand on the opposite side of your desk and still read what you're printing.

For some sets I used a felt pen to mark the edge of a pack in a unique way so they were easier to find when they got mixed up with other cards.

### **A General description of Play (for most games) :**

The cards are first shuffled thoroughly and then placed face down in reasonably neat rows of four or five. Shuffling can be a problem. I taught the children to push cards with their thumb, one at a time, off the pack into the other hand, one to the bottom, one to the top, until done. If they did this twice, and then again, moving several cards at a time, the cards would be quite well shuffled. Of course there's always the little person who knows how to shuffle like professional card dealers do.

The play usually consists of trying to earn a point by turning over two cards that can be used to perform an activity first set as a goal. For example, one card up is a 2, the other is 5. The activity may be to add them to make 7. If the goal was to make 7, then a point has been made.

If a point is scored the cards are turned back over in the same places, or taken away, depending on the game. The scoring player usually keeps the turn, but may have to set a new goal before continuing.

If a point is not scored the two cards are turned back over, in their original place, and the next player begins.

**There are exceptions to these general statements but most of the games have common rules. Children can move easily from one game to another.**

**Usually you will refer to The Matching Game, The Adding Game, The Counting Race, or The Bigger Number Game, Two Places.**

*Those in bold print on p.5 are ones you should know.*

Because luck is involved, adults or older children can play the games and be beaten by young children. A good way to introduce the games is for an adult to play with one child while the others watch.

(I always tried to win, and usually didn't, much to the amusement of all. You might say I've often been beaten at my own game. )





## **Gordon's Games, Section A:**

(Matching shapes)

### **The Matching Game** ( 4+ ) :

This is the simplest of the games. It can be played by two to four players with the set of 20 cards having the numerals 0 to 9 used twice each.

The cards are shuffled and then placed face down in rows of 4 or 5. The players decide on their order of play. (Children seem to think it fair if the one to put the cards out goes last.)

The first player turns over two cards, leaving them in their original places.

If they match, the player picks them up and sets the pair beside his/her place. Then this player continues to turn over another two cards.

If they do not match they are turned face down in their original place, after all players have had a chance to see them. Then the other/next player can turn over two.

The winner is the player with the most pairs when all the cards have been picked up.

(See the end of the book for suggestions for using this game with different cards for children not yet sure of the numerals, as well as with letters and simple words.

### **Match a Goal** ( 5+ ) :

This variation on the above can be used to lead up to the basic addition game. It is played like The Matching Game except the players must set goals for themselves before they may turn two cards up. Players need something to write on.

These goals must be written down while all the remaining cards are face down.

Each player, in turn, must write down a numeral from 0 to 9 that is different from any numbers already chosen. This is the player's goal. A player may only pick up a pair of cards with this number.

After picking up a pair with this number, a player must put a single line through that goal and write down a new goal before going on to try again.

The player who makes the most goals is the winner. If there are more than two players, a player may have to pass up the turn when he/she can't choose another goal.

## **Gordon's Games, Section B :**

(Order)

### **The Counting Race ( 5+ ) :**

Only two can play this game.

The 20 cards are shuffled and placed face down in rows of 4 or 5.

The player who starts second may decide how the 'counting' is to be done. Both players may start at 0 and count up to 9 (the "up game"), or both may start at 9 and count down to 0 (the "down game"), or one may count up while the other counts down (the "up and down game").

The kind of game must be decided on before the play can start.

The first player turns over two cards to begin the game.

Only one card at a time may be picked up, if it is suitable.

A player starting in the "up game" will only pick up a 0 card, if it is face up.

After picking up a 0 card, the player could pick up a 1.

A player picking up a card in numerical order may turn over one more. This goes on until there are two face up cards the player cannot take yet. Then the other player takes his/her turn.

Cards taken are placed face up in a line next to the player, in the chosen order.

The game is won by the player who makes a full set of 0 to 9, or 9 to 0, first.

### **The Tens Race ( 5+ ) :**

Two players use the rules of the last game , with these changes:

Each player must pick up a 0 card first to represent the ones place.

A player counting up will pick up a 1 next and set it down beside his/her place to form a two figure number (10) and then look for a 2 to put on top of the 1 to make 20.

A player counting down will first pick a 0 card, and then a 9 card to form 90.

The race is from 10 to 90 or 90 to 10 and first finished is the winner.

### **The Teen's Race (5+ ) :**

Like The Tens Race except, after finding a 0 card, each player must find a 1 card for the tens place. These are placed as before to form 10.

The next card to choose will be a 2, or a 9, to form 12, or 19, depending on whether they are counting up or down.

Note: Unless you make two more 1 cards, the game continues from 12 to 19, or 19 to 12.

## **Gordon's Games, Section C :**

(Comparing Values)

### The More or Less Game ( 5+ ) :

Two players sit side by side and divide the cards into two 0 to 9 sets.

One set is spread out in front of them or between them, face up and in order.

The other set is stacked in a single pile, face down.

Each player must have four markers (five for the less able) such as buttons, pennies, popsicle sticks.

One player takes the upside down stack and, without letting the other see, turns the stack over, chooses one card to be at the bottom of the stack, memorizes that number, and then turns the stack over and sets it down.

The other player must then try to guess the chosen number hidden at the bottom of the stack. This guess is shown by placing one of the markers on one card in the row of face up cards. That marker stays there. (The player hiding a card will get it.)

If the guess is correct the player who hid the card turns over the deck to show that it is that number, and then takes the marker.

Then the two players change roles and start again.

If the guess is not correct, the player who hid the card must tell the other that the correct number is "more than that" or "less than that". The guessing player would then place a marker on a new number.

This goes on until the correct number is reached, or the one guessing runs out of markers. Then the one who hid the card shows it and takes all the markers.

If the one to guess next has no markers, a new game will start. If both have markers, or only the one to guess next has markers, then they change roles.

Should it be shown that false "more" or "less" directions were given, then the markers are given back.

Note: There is no real winner in this game. Children simply like to guess, and to make someone guess. A time limit can be set.

When players become skilled enough they can start with one less marker each.

### The Bigger ( or Smaller ) Number Game, One Place ( 4+ ):

Two or more may play this game, although more will shorten the game.

The cards are shuffled and set out face down in rows of 4 or 5.

The players agree to have the bigger number, or the smaller number, of a pair of cards be the goal of the game.

Then, in turn, each player picks up one card and names the number on it.

The player with the winning number, bigger or smaller, puts that card face up beside his/her place. Cards so placed must be visible to both players.

If both choose the same number, they both keep their card.

The losing card goes face up between the players in what children like to call “the garbage can”.

The player who won will start the next round.

If it was a tie, then the second player starts first.

Play continues until all the cards are gone.

The player with the most cards is the winner.

It is possible to have a tie, and best to let it go at that.

Note: It may be wise to include a third person as a judge or helper. The game could be changed to have this person deal one card from a pack to each player in turn.

### The Bigger ( or Smaller ) Number Game, Two Places (5+ ) :

Just like the above game, except that:

The players, in turn, choose one card at a time until they have two cards each.

The players hold the cards in their hands until they have decided on the best arrangement for the chosen game. A player with a 5 card and a 0 card could choose to make 50, or 05.

When they have decided, they place their face up cards down beside their place to form the number chosen (50 or 05 in the example).

They then name their number.

Cards set down cannot be changed around, even if they are misnamed.

The winning cards are left in place and if two players end up with the same amount of winning numbers, then the player with the largest (smallest) two figure number in their set is the winner.

The Note above applies to this game as well.

## **Gordon's Games, Section D:**

(Number Operations)

**The Adding Game ( 6+ ): This is the game to study or play first.**

**It is described at length for two players, although more could play.**

Each player needs something to write on and write with.

The players first decide on their order of play, the point at which the game will stop, and the range of goal choices. (0 to 18 is the full range, but younger children, for example, may start out with 0 to 10, or older children with 10 to 18.)

Then the cards are shuffled and placed, face down, in rows of 4 or 5.

After this each player, in turn, must choose and write down a number from 0 to 18 as a first goal.

This goal is the possible sum of the numbers on two cards to be turned up later. It must be different from any goal chosen by any player during the game.

After both/all players have written their goals so all can see, the first player starts the game by turning over two cards and leaving them in their original place, visible to all.

The first player then adds the two numbers on those cards and tells the other(s) what he/she believes it to be. If the first player believes the sum to be the same as his/her goal number, a line is drawn through that goal number to show a point has been made.

If any other player believes a mistake has been made, they must protest right away. If there is a protest the cards are not touched until it is settled. If the first player is proven wrong the goal number must be circled and rewritten.

If there is no protest, the two cards are turned over before the first player writes a second goal, different from any other goal.

The first player then turns up any two cards and goes on as before.

If the first player does not make a goal with the two cards up, the cards are turned down in their original place and the second player starts his/her turn.

This goes on until all the goals have been made, or some time agreed upon before the start has been reached, or an authority figure stops the game.

Note: There is no penalty for protesting the sum announced by a player.

So another player has time to protest, the cards up cannot be turned over until their sum has been announced and a line has been drawn through the number.

Only after the cards have been turned over is it too late to protest.

If a player wishes to change an unmade goal, when it is his/her turn they may circle that goal and write a new one. He/she then passes the turn on to the next/other player immediately. Losing a turn is the penalty for changing a goal.

See the next page for a sample run through of this game.

For example, **The Adding Game:**

B and C decide to play until one reaches 5 points, and B is to be first.

B writes down 11 as a goal. C then writes down 6. Both allow the other to see their goal.

B then turns over two cards, a 7 and a 2. Seeing these do not add up to 11, B allows C to look at the cards and then turns them over again.

Now C begins and turns up a 4. C remembers the 2 that B found and turns it up.

C's 4 and 2 make the goal of 6 so C says, "six", and draws a line through the 6 written as a goal to show one point has been made.

C then turns over the 4 and 2 cards and, after that, writes down 7 as a second goal.

This done, C turns up a 3 and tries to turn up the 4 found before. Instead C turns up a 5.

Seeing that 3 and 5 do not make the goal of 7, C turns the cards back over.

B turns over a 7 and the 5 C found. Thinking that 7 and 5 make 11, B says, "eleven", and draws a line through the 11 written as a goal.

C quickly protests that the sum of 7 and 5 is 12.

B checks this and agrees. B circles the 11 with the line through it to show a point has not been made, and writes 11 again.

The two cards up are turned down and C takes the turn.

C finds an 3 and a 4 this time, says, "seven", and draws a line through the goal of 7. C next turns over the 3 and 4. That done, C writes down 12 as a third goal. Then C turns up the 7 and 5 cards B found.

C announces the sum is 12, draws a line through that goal, turns over the 7 and 5, and writes down 10 as a fourth goal.

Next C turns up the 7 again and tries for the 3, but misses and gets an 8.

After these are turned over, B has a turn and the game goes on until one player has reached 5 points and is the winner.

Note: The protest was made quietly and both were good sports.

11.

### Making Nines ( 6+ ):

This is a game which provides practise with the numbers that have the most different sets of one figure parts. That is, 9 is made from 0+9, 1+8, 2+7, 3+6, 4+5. 18 is only made from 9+9. It is easier to teach and to play than The Adding Game.

The rules are the same as The Matching Game except the pairs picked up will be two numbers which add up to 9, such as 0 and 9, 1 and 8, etc.

Note: The game can be Making Eights, or Making Tens, but there will be two cards left at the end of either game.

### The Adding Game with two or three cards (6+ ):

This is played just like The Adding Game, except that a player may choose to pick up a third card if the sum of the first two cards up is less than the player's goal.

The goals are still chosen from the range of 0 to 18.

Example: B's goal is 16. B turns up a 7 and an 8. B says, "fifteen" and may then turn up another card. If it is a 1 then B says, "sixteen", and has made a goal.

### The Adding Game with plus ten (6+ ):

This time the players may choose to add 10 to the first of the two cards turned up. Cards must be turned over one at a time since this option is not open after the second card is turned up.

If the player chooses to add 10 to the first number, this cannot be reversed.

The player choosing to add 10 must say aloud the sum of 10 and the first number, before turning up the second card. Until turned over again, the number continues to be thought of as 10 more than it is.

Goals for this game may be chosen from 0 to 28.

Example: B's goal is 15. B first turns up a 2. B says, "twelve", and then turns up a 3. B says, "fifteen", to make the goal and one point.

### The Adding Game with three cards ( 7+ ):

In this game the players must turn up three cards for each turn. Points are only made when the sum of all three numbers turned up equal the player's goal.

Goals for this game may be from 1 to 26.

Example: C's goal is 16. To make it, C may turn up a combination such as a 7, and 8, and a 1. C might also turn up a 7, a 9 and a 0 to make 16.

### The Adding Race ( 7+ ):

Note: The Counting Race and The Adding Game should be read or played first.

This, like The Counting Race, can only have two players. It is played like The Counting Race and like The Adding Game. Unlike The Counting Race, players do not take the cards away from their original spot and they may be trying to make the same numbers as their opponent. For this reason it is best if they start at different points and / or move through the numbers in different directions. (Since the cards are staying in one place it would be too easy to just copy what an opponent had already done.)

These players do not choose goals. They choose a set of goals to be made in a certain order. They must decide how the race will be played. (Of course, someone might dictate what the rules of the day are.)

The options are:

- a. Any range from 0 to 18 can be chosen. Players might choose to race from 5 to 15, or 15 to 5, for example. 18 and 0 will be the hardest to get.
- b. Players might decide to race from 10 (the easiest to make). For example, one going towards 5 and the other towards 15. They might do just the opposite to see who can get to 10 first. Whatever is decided it must be remembered that the range must center on 10 to be fair.

Goals are made, one at a time, in the order decided on, over the range decided on, until one player makes their last goal and wins.

Before they start, the players must write down, in order, the numbers they will have to make to win.

This may sound complicated, but it really isn't.

Example: The players decide to race away from 10. B will go towards 5, and C will go towards 15. B writes down 10, 9, 8, 7, 6, 5. C writes 10, 11, 12, 13, 14, 15.

B goes first and finds a 6 and 4. B is away! B draws a line through 10 and turns over the 6 and 4. B still has the turn and next turns over 5 and 3. B turns them back over.

C turns over the 6, but can't remember where the 4 is and turns up a 2. C turns the 6 and 2 back over and B starts.

They go on like this until the first one to cross out all his/her goals wins.

This game could be played like any of the three variations on The Adding Game, but that would be more complicated.

### The Adding to Fifty Game ( 8+ ):

This and the next two variations are quite different from the previous adding games.

Players in this game do not choose goals and may only look at two cards each turn. It is best played with two players. The deck is set out in the usual 4 x 5 way.

They need a common place to record numbers.

The first player turns up two cards and writes their sum and, beside it, his / her initials.

After the cards are turned down, the second player turns over two cards and adds their sum to the first player's sum. The new sum is then written down with the second player's initials beside it. The cards are turned face down again.

The first player then adds the sum of two chosen cards to the second player's sum and initials the latest sum.

This continues until one player is able to bring the sum to exactly fifty, or is forced to go over it. The winner is the player who reaches fifty exactly, or is closest to fifty when someone goes over fifty.

Example: Players B, C, and D have brought the common total up to 42.

B takes the turn and a 0 and 6 come up. B's latest sum becomes 48. B writes down 48 and initials it.

When the cards are face down, C takes the turn and finds a 0 and 1 making C's latest sum to be 49. C writes down 49 and initials it.

The cards are turned down again and D turns over a 0, tries for the 1, but turns up a 6. The total is 55 and the game is over.

C is the winner since C brought the total closest to 50 without going over.

Note: Some players may prefer to rule that the cards are taken out of play as they are turned over. This would mean they would be placed to one side and the players would have to choose from the cards remaining face down.

### Adding to Fifty Race( 8+ ):

This variation is much like The Adding to Fifty Game, except that it can be played by two to four players who keep their own separate totals of the sums of the cards they turn up and can only win if they make exactly 50.

So that their own totals will not exceed 50, the players may at any time decide not to add on the sum of the two cards they turn up, but they may not add to their total the value of just one of the cards up. They add the sum of both or nothing at all.

Example: B is up to 35. C has 32. B turns up a 7 and 5 to make a total of 47. C turns up the 7 and a 6 to make 45. B then turns up a 2 and 4 and does not add these on. C turns up the 2 and a 3 to make 50. C wins.

### The Fifty or Under Game ( 7+ ) :

This is not a game where the cards are set out like any of the others, but the play is similar to The Adding to Fifty Game. Luck plays a very small part in this game.

Two players each take a set of cards from 0 to 9 and place them face up in front of themselves so each can see the other's cards.

The players take turns pushing forward one card at a time from their set.

As each card is pushed forward the number on it is added to the total formed by adding all the other cards out.

The player making the total go to 50, or having a total under 50 when the other player has to go over, is the winner.

N.B. The game could be played to some number other than 50, providing that number is less than 90. Changing the 50 to 20 could make the game more suited to the youngest players.

Example: The cards 9, 5, 3, 4, and 5 are out to make a total of 26 when the goal is to make 30.

C, not having a 4 and knowing B doesn't have a 3, pushes out a 1 to make 27.

B, seeing C doesn't have a 1, pushes out a 2 to make 29.

C is desperate and pushes out a 0, but it will do no good.

B wins by pushing out a 1.

### The Subtracting Game ( 7+ ) :

This is played just like The Adding Game, but the goals chosen represent the difference between the two numbers up. Players must choose goals from 0 to 9.

Example: B has written 3 as a goal. If B turns up a 2 and a 5 then B can subtract the 2 from the 5 to make the goal of 3.

C has chosen the goal of 0. If C can turn any two numbers up that are the same, C can make this goal.

### The Subtracting Game with Plus Ten ( 7+ ) :

This is played just like The Subtracting Game, except the players have the option of adding 10 to either of the two numbers they turn up.

Goals range from 0 to 19.

Example: B chooses 7 as a goal. If B turns up a 4 and a 1, this goal can be made providing B calls out, "eleven", for the 1 card. B would then subtract the 4 from the 11 to make the goal of 7.

Note: If B had called out, "fourteen", it could not be changed and the goal could not be made.

### The Subtracting Race ( 7+ ) :

This is played like The Subtracting Game and The Adding Race.

Two players start at opposite ends of the 0 to 9 goal set.

The first to make all the goals in their order is the winner.

Once during the game the players may have the same goal at the same time.

Example: B is racing up. B writes down 3, 4, 5, 6 as C has agreed to limit the game to four points. B must first turn over two cards with numbers having a difference of 3. Once that is done, B must draw a line through the 3 written down, and turn over the two cards up. Then B can try to turn over two cards having a difference of 4. If B fails to do so, the turn goes to C.

C has written 6, 5, 4, 3 as a goal set. C must first turn over two cards with numbers having a difference of 6. If C fails to do so the turn goes back to B.

The game goes on like this until one has finished his/her goal set and is the winner.

### The Multiplying Game ( 8+ ) :

This is played just like The Adding Game, except the possible goals are some numbers from 0 to 81, the numbers that are products of the two numbers up.

Since it is possible to choose a goal that is not a product of any two numbers that could come up, a player may at any time, and for any reason, decide that the goal chosen is not a wise one.

When all cards are face down, that player may then circle that written goal and write another. The circle around the number shows a loss of one point for that player.

Goals that have been chosen, but circled, may be chosen by one other player.

Note: - The game is improved if the players first agree that the turn will not be kept when a point is made.

- Since there are so many possible goals the players should decide first to end the game when one reaches a certain number of points, say 10.

- For players just beginning to multiply, the upper limit of the goal set may be dropped to any reasonable point.

- The game may be improved by taking out the 0 and/or 1 cards. This will limit the possible goals to between 4 and 81.

Example: B and C agree to end the game at 5 points, to choose from 0 to 18, and not to keep the turn when a point is made.

B chooses to make 6, and turns up two 3's .

C, with a goal of 12, turns up a 3 and 4 to make a goal.

B takes the turn and finds a 6 and a 1 to make the goal of 6.

C then takes the turn, with each having one point.

### The Multiplying Game with Two or Three Cards ( 8+ ) :

This is played exactly like The Multiplying Game except players have the option of turning up a third card after two are up.

The range of goal choices can remain from 0 to 81, or less if desired.

Example: B has chosen 12 as a goal. B turns up a 2 and a 3.

Since 2 times 3 is only 6, B decides to turn up a third card.

B turns up another 2, and since 2 times 3 times 2 is 12, the goal is made.

### The Dividing Game ( 7+ ):

This will be played just like The Adding Game but the goals chosen represent the divisors of the two figure numbers formed from the two cards up, as in The Bigger (Smaller) Number Game, Two Places.

Goals are chosen from 2 to 9.

The two numbers turned up are thought of as being either tens or ones, except for 0 which always takes the one's place.

A point is made when the goal number can be divided evenly into the two figure number formed from the two face up cards.

Once the two cards up are chosen to be a certain two figure number they cannot be switched to another as long as that player keeps the turn. That is, a player cannot make a point with 12 and right after choose 7 as a goal, pick up the 1 and 2 again, and call it 21.

After turning up two cards the player must call out the number he/she wants them to form, if he/she thinks a goal can be made.

If a point is made the number used to make the goal must be written beside that goal number and may not be used again by any player. That is a player with a goal of 2, finding a 1 and 2, could call them 12, but after crossing out the goal of 2 would also write 12 beside the 2. No one could use 12 again.

The player who has made the most goals when all have been used is the winner.

Example: B has chosen a goal of 7. B turns up a 5 and 6 and calls out, "56". Since 7 divides evenly into 56, B has made one point.

B then draws a line through the 7 and writes 56 beside it. Next B turns over the two face up cards and writes down 3 as a goal.

Then B turns up a 5 and a 0. This can only be 50, and since it is not divisible evenly by 3, B loses the turn.

B would be careful to see that no one else uses 56, and his opponents would watch that B didn't. All would allow 5 and 6 to become 65.

### The Dividing Race ( 7+ ):

This is played just like The Dividing Game and The Adding Race.

Two players start at the same end of the 2 to 9 goal set, or the opposite end.

They may have the same goal as the other, but they will have to make it in a different way.

The first to make all the goals, or a set number of goals, is the winner.

N.B.: Making a goal of 2 is much easier than 9. Players choosing to go opposite directions on the goal set would have to be sure they do the same goals.

That is both doing 5 to 9 in opposite directions would be fair, but one doing 2 to 5 while the other did 9 to 6 would not be fair.

### The Factors Game ( 7+ ):

In this variation, the 0 and 1 cards are removed and the remaining cards are arranged in four rows of four.

Although the players may be dividing, the play is much like The Multiplying Game.

Goals are chosen from 4 to 18. and are made when each of the two cards turned up divide evenly into the goal number. That is, if the goal is 16, and a 3 and 4 are turned up, since only 4 divides evenly into 16 (is a factor of 16) then a point would not be made. If 8 and 4 were turned up, a point would be made.

As in The Multiplying Game, a player may choose a new goal before making the old one simply by circling the old one. A point is then taken from that player's total and other players are free to take the circled goal.

For this reason players should not keep the turn after making a point.

Example: C has chosen 16 as a goal. C turns up a 2 and a 4. Both of these divide evenly into 16 so C has made a point and the turn goes to B.

When the cards are face down, B, who has a goal of 17, decides this cannot be made. B circles the 17 and writes down 8. B then turns over the 2 and 4 to make a goal and gain back the point that was lost. The turn then goes to C.

### The Multiples Game ( 8+ ):

This is played like The Dividing Game.

The goals chosen are pairs of different numbers from 2 to 9.

Points are made when each number in the goal pair will divide evenly into a two-figure number formed by the two cards up.

The use of the two numbers turned up to form a new number is handled just as in The Dividing Game. The two figure number used to make a goal is written beside the pair and cannot be used again during the game by any player.

Goal numbers may be used as often as possible by all players during a game, but each pair may only be used once.

Since there are many possible pairs, the players may decide to end the game when one first reaches a certain number of points, perhaps 10.

The turn is not kept after making a goal.

Example: B has written 2 and 5 ( 2 , 5 ) as a goal.

B turns up a 3 and a 0 and declares this to be 30.

Both 2 and 5 divide evenly into 30 so B has made one point.

B turns over the 3 and 0, crosses out the 2 and 5, writes 30 beside them, and writes 2 and 6 as a new goal pair. The turn then goes to C.

## Fraction and Decimal Games ( 8+ ) :

Playing The Bigger (or Smaller) Number Game, Two Places, could benefit children with some understanding of fractions and / or decimals.

To simulate fractions, one card could be placed over the other to form a numerator and denominator.

The smaller number would always go on top (unless they were the same).  
(You might have a reason for eliminating this last rule.)

It could be a real challenge to decide which player had formed the bigger, or smaller, fraction.

Example: B turns up a 2 and a 5. B arranges them as  $2/5$ .

C turns over a 3 and a 4. C arranges them as  $3/4$ .

Who wins a point? Which fraction goes in the garbage pile.

To simulate decimals, each player could have a supply of buttons to use as the decimal point.

Players would then not only have to consider where to place each number up, but would have to think of where to place the decimal point.

A useful rule could be that the decimal point always went between the numbers or before the numbers, never after.

Example: B turns over a 2 and a 5 and is trying to make the smaller number.

B can choose from .25, .52, 2.5, 5.2.

C turns over a 3 and a 4. C can choose to make .34, .43, 3.4, 4.3.

B, with the right choice, will be the winner.

The Adding to Fifty Game and The Adding to Fifty Race could be modified to use fractions (very difficult) or decimals. Rules would have to set a small goal, say 5.  
(The sum of all the whole numbers in the 20 card set is 90.)

**This is the end of the number games using the 0 to 9 cards.**

**The reader is, as stated before, free to change the rules, and free to adapt the games to new uses.**

**I'm sure some readers will develop new games as well, and I'd like to hear of them.**

## **Gordon' Games, Section E :**

(Other games)

Many other skills can be practised using rules from The Matching Game and The Counting Game.

Over the years I have made many sets of cards for many purposes. Most could be used with the same rules. Most of the sets contained from 8 to 15 pairs.

These included:

- matching shapes to develop prereading skills
- pairs where one card has a numeral and its partner has that amount of objects; for instance, gummed circles (zero's partner was left blank). (These cards could be used in some of the simpler number games.)
- pairs of letters, as D, d
- pairs of letters, taking half the alphabet at a time
- letters paired with pictures representing the letter's initial sound
- pairs of words such as:
  - : but - but, tub - tub, no - no, on - on
  - : beg - beg, bag - bag, big - big, dig -dig, dog -dog
  - : bet - bet, bed - bed
  - : rhyming words, antonyms, synonyms, homonyms

All the above could be played using the rules for The Matching Game.

### Up and Down the Alphabet Game ( 5+ ) :

Use a set of cards containing, say, half of the alphabet, with each letter made twice, or a smaller set, just as long as the letters are chosen in order.

Lay them out as best you can in rows and columns, face down.

Use the rules for The Counting Game to go through the letters in alphabetical order. You may wish to provide an alphabet for beginners to refer to. It isn't easy to go through the alphabet backwards, starting at m.

### The Word Game ( 6+ ) :

Choose a set of simple words and make up enough letter cards to form every word once. ( 'red' and 'bed' would need 1 r, 2 e's, 1 b, and 2 d's )

You might start with simple, short, children's names with their capital letter clues.

Provide the children with a list of the words if you wish.

Lay the cards out as usual and play a game like The Counting Game except each player must begin by looking for a first letter, then a second, and so on until a word is formed. Then that player must look for another first letter.

The winner will form the most words.

(For older children you might use the letters for one large, complicated word and let them play to see who gets it first.)

### The Sentence Game ( 6+ ) :

Enough word cards are made to form four simple sentences of five words each. First letters of first words are capitalized. Last words have a period.

These cards are shuffled and placed face down in 4 rows of 5, with the words all facing the same way if possible.

Two or more players sit side by side and play this game just as The Counting Game.

First a player must find a capitalized word. Next that player must find a word that comes naturally after the first. (Players don't have to know the sentence the cards were made for.)

As sentences are being formed a player may rearrange the cards he/she has.

Players may also, at any time, remove a word they chose but have decided against. That word is left, face up, to one side.

If another player can, at any time, show that the word set aside is the next card he/she requires, that player can take it at the beginning of their turn.

The winner is the first to complete a five word sentence.

Note: Two players might play until one completes two sentences, but those sentences would have to be finished one at a time.

Here are four sentences: (They can be rearranged to form other sentences.)

1. We have a red car.
2. He can count to ten.
3. She can write her name.
4. I like to eat apples.

### The Alphabet Game ( 5+ ) :

This is the only game children can play alone.

Write the letters for the words below, one letter on each, and keep the words separate. Set out the cards to form the word and carefully turn them face down without changing their order. Choose a writing instrument of a different color. Then, in alphabetical order, print a set of letters on the back, putting one letter on each.

Easiest of course will be consecutive letters such as " r, s, t ," but put some in that are more difficult such as " r, v, w ".

Put an elastic band around the cards forming each word, but leave the cards out of order.

A child picks up a set and places the cards so the letters forming the word are down. The child then arranges those letters in alphabetical order, turns over each card, and, hopefully, sees a reward.

It is important to teach the children to mix up the cards before putting them back.

As with the other card sets, you will want to mark each set differently so the sets don't get mixed up. I made many of the smaller sets, varying the letters on the back of the words.

- 3: YES    4: GOOD    5: RIGHT    6: SUPERB    7: PERFECT  
8: TERRIFIC    9: FANTASTIC    10: TREMENDOUS

Good luck to anyone trying this in another language!

**Class Games:**                      The Spelling Game                      (Spelling Challenge) (7+ ) :

The teacher acts as the judge, and helper, and sits at the front in the center.

Initially, one child is chosen to be 'up', and this child stands by the teacher.

Other children who wish to challenge the person 'up' raise their hands and wait quietly. Quiet is important as all must be able to hear clearly what any person says when it is their turn to talk. (Hands come down to rest the arms when they can.)

The child 'up' chooses one child whose hand is raised. That child says his/her word (I didn't allow words with capital letters). The one 'up' may ask for it to be repeated and the teacher may assist to assure that the word is heard correctly.

The child 'up' then has three choices :

1. to tell the challenging child, "Use it in a sentence", (before choice 2. or 3).

In this case the teacher must decide if the challenger's sentence really uses the word, and must exercise some discretion when considering the word and the challenger's age. If the challenger can't use the word in a sentence, the child "up" remains at the front and doesn't have to attempt the word. If the challenger can use the word in a sentence, the child 'up' must take choice 2. or 3.

2. to tell the challenger, "You spell it."

If the challenger spells it correctly (sometimes I had to consult a dictionary ) he/she becomes the child 'up'. If the challenger is unwilling or unable to spell it he/she sits down, and the child 'up' doesn't have to attempt the word.

3. to attempt to spell it, or to decline.

In this case the child will stay 'up' if the word is spelled correctly, and go down if it isn't. The challenger will become the child 'up' if his/her word is not spelled correctly, even if he/she hasn't had to spell it.

The game can continue for a set amount of time, or until all challengers have had a turn. My preference was to record the name of the last person 'up' so he/she could start the next game, but this did lead to some little people saving their challenges for that moment when they were sure the game was almost over.

This game was so popular, and productive, that we played it for 10 to 15 min. almost every day after the opening activities. Every year almost all the children were active players, and some individuals showed some surprising growth. Spelling correctly became very important. Children would go home and seek out a word and its meaning so they could use it the next day.

Usually I didn't give help with finding words, but I can remember one little person who lacked confidence. I gave this child 'unique' to learn. "You are unique," I said. The next day this child was chosen, given the sentence challenge back, and then the spelling challenge. Both were handled correctly and I didn't have to help this child again.

This seemed to be an activity where most could shine, and where most really wanted to learn what their classmates had learned.

The Spelling Game has also provided many opportunities to discuss fair play, and how to be a good sport when winning or losing.

### The Arithmetic Game [Class] ( 6+ ) :

We played this game much like The Spelling Game. Two children were chosen to go to the front and be 'up'. They stood on either side of me.

The other children thought of a way to ask a question about a basic fact that would be difficult for at least one of the children 'up'. Then they waited quietly with their hands raised.

The child chosen last to be 'up' was the one to choose a challenger.

The challenger stood and gave his/her question in a clear voice. It was up to me to decide if the question was immediately clear to both, and was a proper question.

On hearing the question, both children 'up' said the answer as quickly as humanly possible.

(We had several discussions about being a referee, as this was often difficult to judge.)

I would point to one child if one was first with the correct answer. Then the other child would go down and the challenger would be 'up'.

If both gave the same answer at almost the same time, I would say, "tie". In this case neither would go down, and the challenger would know they had to think of a harder question.

To make this fair for most, a limit was set on the questions asked. For example, to start, the rule might have been to allow adding questions with no numbers over 9.

When children 'up' started to just call out numbers, knowing the right answer would eventually come, we had a new rule. If a child gave a wrong answer they had to wait for his/her opponent to give an answer before having another chance.

Questioning proved to be a real bonus in this game. (If I was still teaching I might try a Jeopardy like game where the object was to come up with a question for a number.) My method of teaching number facts stressed the relationship between the three numbers in a basic fact. That is  $3 + 4 = 7$  was naturally related to  $4 + 3 = 7$ ,  $7 - 3 = 4$ , and  $7 - 4 = 3$ . We spoke of two parts in one whole as the basis for all.

( I intend to expand on this at another time. It really works well and is supported by research into how we learn, and how we retain what we learn.)

For this reason, we learned to turn  $3 + 4 = 7$  into  $3 + 4 = ?$ ,  $? + 4 = 7$ , or  $3 + ? = 7$ , as well as the other nine related questions. As children came to understand this they might challenge the two at the front to tell them, "What number, divided by 7, equals 4?"

Like The Spelling Game , this game was very popular. I know it sounds like most children were just sitting, but its a **game**. They were **involved**, and **thinking!**

**If I can leave you with one last idea, it is that the games in this book demand some deeper thought than simple practise exercises.**

**I would advise you to play them yourself with another adult to try to appreciate what must go on in a child's mind to play the games.**