

The Game of "Set"

Play game

This is an adaptation of a card game
discovered at toy stores because
this is a game for one through 4
Each card has four properties.

Color: 

Letter: 

Number: 

Font: 

There is one card for each combination of the four properties.
Select the "Cards" page to get a picture of all of the cards.
First I'll describe the original manual game, then this computer game.

The game is played by shuffling the cards and then dealing
The players then try to find "sets" of three cards. PLAY
When a player thinks he/she has found a set, he/she can
immediately select the three cards that make the set.
then, afterwards, try to find one.

When a player picks up a set, he earns one point and
the deck. If a player chooses cards which are not, in fact,
one point.

If no player can find a set in the cards which have been
by all players, three more cards are laid down. When
not replaced from the deck. That is, cards are only dealt
the total cards laid out up to twelve.

What constitutes a "set"? Given three cards, each of the
be ALL the same or ALL different, the key word being "all".

These cards make a 

ALL different colors, ALL the same letter, ALL the same

These cards make a **A AA AAA**

ALL the same color, ALL the same letter, ALL different

These cards make a **A BBB CC**

ALL different colors, ALL different letters, ALL different

These cards make a **AAA B CC**

ALL the same color, All different letters, ALL different

These cards make a **CC CC CC**

ALL the same color, All the same letter, ALL the same

In each case, with respect to EACH property, the cards are different.

These cards are not **A AA AAA**

The colors are not ALL different or ALL the same.

These cards are not **B B BB**

The fonts are not ALL different or ALL the same.

These cards are not **B BB BBB**

The colors are not ALL the same or ALL different.

These cards are not **A B CC**

The number of letters is not ALL the same or ALL different.

These cards are not **A BB CC**

The number of letters is not ALL the same or ALL different.
Note that given any two cards, there is always a third

For these two cards: **BB CC**

These cards have the same color, different letters, same

The third card needs to be: **AA**

For these two cards: **AAA AAA**

These cards have different colors, the same letter, the

The third card needs to be: **AAA**

When all of the cards have been dealt, play continues with the remaining cards do not form any sets. The player with

To play this computerized version:

You can begin playing a new game at any time by pre

To select a set of three cards, use the mouse to click on
or "Player 2" or "Player 3". Do the same with the other
evaluates your selections. If you have selected a set,
set you lose a point. You MUST select the cards one at a
handle selection of a multiple cell block.

After selecting one or two cards, you can clear your selection
however, you will lose a point.

If all players agree that the cards on the board do not
"Deal 3" to deal three more cards onto the board.

You can select "ASK" to have the computer find a match
as much as two minutes on a twelve card board and, of course,
the more cards that are on the board. There is no way to
combination of three cards. This function is, however, useful.
You CAN press Ctrl+Break to interrupt the search.

To start playing the game, select the "Board" page, or

"Play Game" button.

About the programming:

Some cell protection is used to keep you from accidently to improve response time, the MAPs are not protected modify them.

I had some difficulty finding three fonts that looked su commonly available. If your machine has the Adobe f might want to change the fonts to be easier to tell apa change them on the "Cards" page.

The macros use the cards' POSITIONS on the "Cards" p properties. Do not rearrange the "Cards" page. Simil the board are computed. Do not add rows or columns

The macros and tables are formatted according to a s Pro programming exercises. Everything is protected, set by {LEI} statements. Magenta cells are formulas Regular black text is code. Labels in column A refer to B. All blocks are single cells except where noted in th

This spreadsheet does not use any startup or exit mac application properties. It also uses no dialog boxes, s

This game was programmed by:

Robert M. Peffer

The Crane-Peffer C.

1021 Shelter Cove Road

Whitethorn, CA 95589

(707) 986-7811

CompuServe: 70621, 1702

This software is distributed as "freeware". It may be distributed free of charge without limit, so long as this copyright information is not altered. This software is not warranted to work in any particular way, or to even work at all. No warranty as to its particular fitness for any particular purpose is expressed or implied. This disclaimer is, of course, subject to provisions of state and local law.

Copyright 1994, Robert M. Peffer

TO WHICH, THE FIRST SAW OF IT, WAS
THE ONE BOUGHT IT.

THE PLAYERS, PLAYED WITH CARDS.

properties, making a total of 81 cards.

different cards in the deck.

computerized version.

dealing twelve cards face up.

PLAYERS DO NOT PLAY IN TURN.

calls out "SEI" and then must

It is cheating to call "SEI" and

the three cards are replaced from
back, a set, then the player loses

when laid out, then, upon agreement
when a set is found, these cards are
removed from the deck in order to bring

the properties of the cards must
ALL.

e number, ALL the same font.

numbers, ALL the same font.

: numbers, ALL different fonts.

numbers, ALL the same font.

number, ALL different fonts.

s are either ALL the same or ALL

nt.

rent.

rent.

card which would make a set.

ne number and different font.

the same number and the same font.

until all players agree that the
one with the most points wins.

Pressing the "New Game" button.

the first card and then "Player 1"
draw two cards. The computer then
you get a point. If it was not set a
draw it a time. The game does not

selections with the "Clear" button,

form a set then you can press

win. This takes a long time,
of course, exponentially longer
around having to check every
combination, very informative (and humbling).

to press Ctrl+Home and press the

itally wrecking the game, however,
1. Do not select them and do not

efficiently different and that are
fonts or other third party fonts, you
art. To change the fonts, simply

page to determine their
arily, the positions of the cards on
; or move the cards.

tandard I use for all of my Quattro
except for cells in Blue, which are
. Bold italics are comments.
one cell named blocks in column
e code and on the MSG page.

cross, nor does it modify any
peed bars or graphics.

being happy

New Game

Player 1

Player 2

Player 3

Clear

Ask

Deal 3

Points:

0

0

0

Player: any

Cards: 69

CC	BBB	BB	BB
AA	CCC	AAA	CC
C	A	B	CCC

Board Map

66	51	41	38	-1	-1	-1	-1
17	74	19	63	-1	-1	-1	-1
62	0	33	73	-1	-1	-1	-1
-1	-1	-1	-1	-1	-1	-1	-1
-1	-1	-1	-1	-1	-1	-1	-1
-1	-1	-1	-1	-1	-1	-1	-1
-1	-1	-1	-1	-1	-1	-1	-1
-1	-1	-1	-1	-1	-1	-1	-1
-1	-1	-1	-1	-1	-1	-1	-1

Values: -1No tile
 nTile n

DO NOT MODIFY THIS PAGE!!!!

-1
-1
-1
-1
-1
-1
-1
-1
-1

1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0
0	0	0	0	0	0	0	1	0
0	0	1	0	0	0	1	0	0
0	0	0	0	0	0	0	1	0
0	0	0	0	0	0	0	0	0
1	0	0	1	0	0	0	0	0
0	1	1	0	0	0	0	0	0

Values: *0Undealt*
 1Dealt

DO NOT MODIFY THIS PAGE!!!!

0
1
0
0
0
0
1
0
0

Programming

Variables

ChrIx1	2	<i>Chr dimension of Card1No</i>
QtyIx1	2	<i>Qty dimension of Card1No</i>
FntIx1	0	<i>Fnt dimension of Card1No</i>
ClrIx1	1	<i>Clr dimension of Card1No</i>
Card1Addr	#NAME?	<i>Address of Card1No into Cards and CardMap</i>
Card1No	73	<i>First current card number (0..80)</i>
ChrIx2	1	<i>Chr dimension of Card2No</i>
QtyIx2	1	<i>Qty dimension of Card2No</i>
FntIx2	0	<i>Fnt dimension of Card2No</i>
ClrIx2	0	<i>Clr dimension of Card2No</i>
Card2Addr	#NAME?	<i>Address of Card2No into Cards and CardMap</i>
Card2No	36	<i>Second current card number (0..80)</i>
CardsUsed	12	<i>Number of cards dealt from Cards</i>
BoardUsed	12	<i>Number of cards on board</i>
Points1	0	<i>Points accumulated by player 1</i>
Points2	0	<i>Points accumulated by player 2</i>
Points3	0	<i>Points accumulated by player 3</i>
Player	1	<i>Player currently selecting</i>
SvPlayer	0	<i>Last player who selected</i>
BoardHor	4	<i>Row index into Board and BoardMap</i>
BoardVer	0	<i>Col index into Board and BoardMap</i>
BoardHor2	2	<i>Extra row index</i>
BoardVer2	1	<i>Extra col index</i>
BoardHor3	0	<i>Extra row index</i>
BoardVer3	2	<i>Extra col index</i>
MaxHor	3	<i>Max Row</i>
MaxVer	2	<i>Max Col</i>
WrkCtr	12	<i>A work counter</i>
Ans	y	<i>User response</i>
SelCtr	0	<i>Number of cards selected</i>

Array of indexes to three selected cards

Sel0Card	-1
Sel1Card	-1
Sel2Card	-1

Array of addresses of three selected cards into Cards and CardMap

Sel0Addr
Sel1Addr
Sel2Addr

Accumulated number of matches between three selected cards

ChrMatch	3
QtyMatch	0

FntMatch 1
 ClrMatch 1

Accumulated number of non-matches between three selected cards

ChrNMatch 0
 QtyNMatch 3
 FntNMatch 2
 ClrNMatch 2

TotMatches 2 **Total matches or nonmatches**

Deal 1 card (called by Deal3 and Deal12)

Deal1 {}
 Deal1A {Let Card1No,@INT(@RAND*81)}
 {ReCalc Chr1x1}{ReCalc Qty1x1}{ReCalc Fnt1x1}{ReCalc Clr1x1}{ReCalc Card1Addr}
 {ReCalc Deal1C}
 Deal1C #NAME?
 {If @CELLPOINTER("contents")<>0}{Branch Deal1A}
 {PutBlock 1}
 {ReCalc Deal1E}
 Deal1E #NAME?
 {EditCopy}

Deal 3 cards

Deal3 {}
 {ReCalc CardsUsed}
 {If CardsUsed=81}{Branch Deal3Z}
 {WindowsOff}{PanelOff}{WaitCursorOn}{Indicate "WAIT"}
 {Let WrkCtr,0}
 {SetMaxHorVer}
 {Let BoardHor,0}
 {Let BoardVer,0}
 Deal3G {Deal1}
 Deal3L {ReCalc Deal3P}
 Deal3P #NAME?
 {If @CELLPOINTER("type")="b"}{Branch Deal3X}
 {Let BoardVer,+BoardVer+1}
 {If BoardVer<MaxVer}{Branch Deal3L}
 {Let BoardVer,0}{Let BoardHor,+BoardHor+1}
 {Branch Deal3L}
 Deal3X {}
 {SetObjectProperty "Active_Block.Protection","UnProtect"}
 {EditPaste}
 {SetObjectProperty "Active_Block.Protection","Protect"}
 {ReCalc Deal3Y}
 Deal3Y #NAME?

```
{Let WrkCtr,+WrkCtr+1}
{If WrkCtr<3}{Branch Deal3G}
{Let BoardUsed,+BoardUsed+3}
{WindowsOn}{PanelOn}{WaitCursorOff}{Indicate}
```

Deal3Z {}

Deal 12 cards

Deal12 {}

Deal12B {Beep}
{Message NewBoardMsg,10,10,0}
{GraphChar Ans}
{If Ans<>"Y"}{Branch Deal12Z}
{}
{WindowMaximize}
{WindowsOff}{PanelOff}{WaitCursorOn}{Indicate "WAIT"}
{SetObjectProperty "Board:A2..I10.Protection","UnProtect"}
{Blank Board:A2..I10}{SetObjectProperty "Board:A2..I10.Shading","3,0,Blend7"}
{PutBlock 0,CardMap:A1..I9}
{PutBlock -1,BoardMap:A2..I10}
{Let Points1,0}{Let Points2,0}{Let Points3,0}
{Let WrkCtr,0}
{Let BoardHor,0}
{Let BoardVer,0}

Deal12L {Deal1}

{ReCalc Deal12P}

Deal12P #NAME?

{EditPaste}
{ReCalc Deal12S}

Deal12S #NAME?

{Let BoardVer,+BoardVer+1}
{If BoardVer=3}{Let BoardVer,0}{Let BoardHor,+BoardHor+1}
{Let WrkCtr,+WrkCtr+1}
{If WrkCtr<12}{Branch Deal12L}
{SetObjectProperty "Board:A2..I10.Protection","Protect"}
{Let BoardUsed,12}
{ClearSels}
{WindowsOn}{PanelOn}{WaitCursorOff}{Indicate}

Deal12Z {}

Select a card

Select {}

{If @CELLPOINTER("row")=1}{Branch Select099}
{If @CELLPOINTER("type")="b"}{Branch Select099}
{ReCalc Select005}{ReCalc Select006}

Select005 #NAME?

Select006 #NAME?

{If SvPlayer<>0#AND#Player<>SvPlayer}{Branch Select099}

```

    {If @CELLPOINTER("TwoDAddress")=Sel0Addr#OR#@CELLPOINTER("TwoDAddress")
    {}
    {Let SvPlayer,Player}
    {ReCalc Select010}{ReCalc Select011}
Select010    #NAME?
Select011    {Let Sel0Addr,@CELLPOINTER("&quot;TwoDAddress&quot;);}
    {Let SelCtr,+SelCtr+1}
    {SetObjectProperty "Active_Block.Text_Color","0"}
    {If SelCtr<3}{Branch Select080}
    {WindowsOff}{PanelOff}{WaitCursorOn}{Indicate "WAIT"}
    {CkSels}
    {If TotMatches=4}{Branch Select050}
    {NoMatch}
    {ClearSels}
    {WindowsOn}{PanelOn}{WaitCursorOff}{Indicate}

Select050    {}
    {IsMatch}
    {ClearSels}
    {WindowsOn}{PanelOn}{WaitCursorOff}{Indicate}

Select080    {}

Select099    {}
    {Beep 3}

```

Three cards selected, check for match (returns TotMatches)

```

CkSels    {}
    {Let ChrMatch,0}{Let QtyMatch,0}{Let FntMatch,0}{Let ClrMatch,0}
    {Let ChrNMatch,0}{Let QtyNMatch,0}{Let FntNMatch,0}{Let ClrNMatch,0}
    {Let Card1No,+Sel0Card}{Let Card2No,+Sel1Card}{CkMatch}
    {Let Card1No,+Sel0Card}{Let Card2No,+Sel2Card}{CkMatch}
    {Let Card1No,+Sel1Card}{Let Card2No,+Sel2Card}{CkMatch}
    {}
    {Let TotMatches,0}
    {If ChrMatch=3#OR#ChrNMatch=3}{Let TotMatches,+TotMatches+1}
    {If QtyMatch=3#OR#QtyNMatch=3}{Let TotMatches,+TotMatches+1}
    {If FntMatch=3#OR#FntNMatch=3}{Let TotMatches,+TotMatches+1}
    {If ClrMatch=3#OR#ClrNMatch=3}{Let TotMatches,+TotMatches+1}

```

Not really a match

```

NoMatch    {}
    {ReCalc NoMatch010}
NoMatch010 {Let Points1,+Points1-1}
    {Beep 4}{Beep 3}{Beep 2}{Beep 1}

```

Three matches or three nonmatches

```

IsMatch    {}
    {ReCalc IsMatch005}

```



```

    {If BoardVer2=9}{Let BoardVer2,0}{Let BoardHor2,+BoardHor2+1}
    {If BoardHor2<9}{Branch IsMatch060}
    {Branch IsMatch099}

IsMatch070    {}
              {Put BoardMap:,BoardHor,BoardVer+1,@CELLINDEX("contents",BoardMap:,BoardH
              {Put BoardMap:,BoardHor2,BoardVer2+1,0}
              {ReCalc IsMatch072}

IsMatch072    #NAME?
              {EditCopy}
              {SetObjectProperty "Active_Block.Protection","UnProtect"}
              {Del}
              {SetObjectProperty "Active_Block.Protection","Protect"}
              {SetObjectProperty "Active_Block.Shading","3,0,Blend7"}
              {SetObjectProperty "Active_Block.Text_Color","3"}
              {}
              {ReCalc IsMatch074}

IsMatch074    #NAME?
              {SetObjectProperty "Active_Block.Protection","UnProtect"}
              {EditPaste}
              {SetObjectProperty "Active_Block.Protection","Protect"}
              {Branch IsMatch050}

IsMatch099    {}

```

Accumulate matches and nonmatches for a pair of cards (called by Select020)

```

CkMatch    {}
           {ReCalc ChrIx1}{ReCalc QtyIx1}{ReCalc FntIx1}{ReCalc ClrIx1}{ReCalc Card1Addr}
           {ReCalc ChrIx2}{ReCalc QtyIx2}{ReCalc FntIx2}{ReCalc ClrIx2}{ReCalc Card2Addr}
           {If ChrIx1=ChrIx2}{Let ChrMatch,+ChrMatch+1}
           {If QtyIx1=QtyIx2}{Let QtyMatch,+QtyMatch+1}
           {If FntIx1=FntIx2}{Let FntMatch,+FntMatch+1}
           {If ClrIx1=ClrIx2}{Let ClrMatch,+ClrMatch+1}
           {}
           {If ChrIx1<>ChrIx2}{Let ChrNMatch,+ChrNMatch+1}
           {If QtyIx1<>QtyIx2}{Let QtyNMatch,+QtyNMatch+1}
           {If FntIx1<>FntIx2}{Let FntNMatch,+FntNMatch+1}
           {If ClrIx1<>ClrIx2}{Let ClrNMatch,+ClrNMatch+1}

```

Clear selected cards

```

ClearSels    {}
            {Let SelCtr,0}

Clear005    {ReCalc Clear010}{ReCalc Clear011}
Clear010    {If Sel0Card&lt;0}{Branch Clear020}
Clear011    Err:502
Clear020    {Let SelCtr,+SelCtr+1}
            {If SelCtr<3}{Branch Clear005}
            {Let SelCtr,0}
            {Let Sel0Card,-1}{Let Sel1Card,-1}{Let Sel2Card,-1}

```


ss")=Sel1Addr#OR#@CELLPOINTER("TwoDAddress")=Sel2Addr}{Branch Select099}

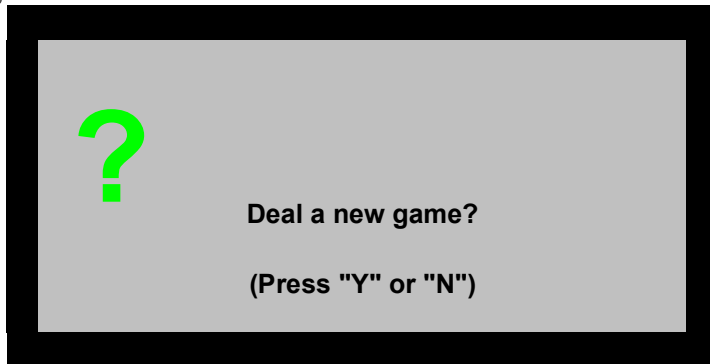
or2,BoardVer2+1}}

9,9,9,9)}
9,9,9,9)}

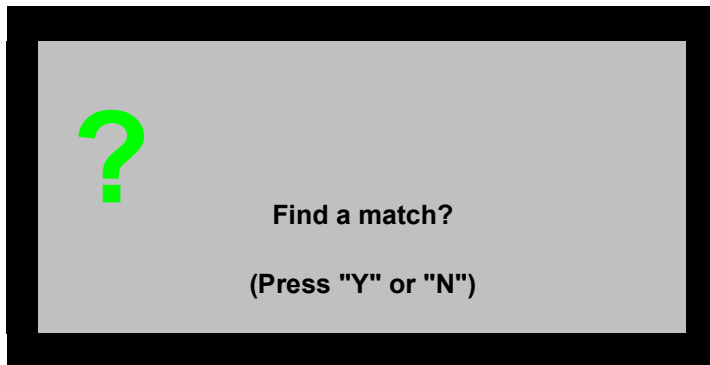
Branch Ask020}

ch Ask010}

NewBoardMsg



AskMsg



AskNFndMsg



AskFndMsg



i

Match found! Press any key...