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Code review of       Bomberman/1  
Bugs identified       6

Bug Number	Description
1	Enemy can't identify the bomb
2	Board array is not private
3	Bricks array is not private
4	Del method of an Enemy is not private
5	Del method of an Bomb is not private
6	When enemy overlaps with the bomb and the bomb explodes the bomb is not removed from that position

```
***** Module alarmexception
C: 1, 0: Missing module docstring (missing-docstring)
C: 9, 0: Missing class docstring (missing-docstring)
W: 2, 0: Unused import signal (unused-import)
W: 3, 0: Unused import copy (unused-import)
W: 4, 0: Unused import sys (unused-import)
W: 5, 0: Unused import time (unused-import)
W: 6, 0: Unused randint imported from random (unused-import)
***** Module board
C: 23, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 26, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 30, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 40, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 43, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)
C: 46, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)
C: 49, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)
C: 63, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 1, 0: Missing module docstring (missing-docstring)
C: 4, 0: Invalid constant name "board" (invalid-name)
C: 5, 0: Invalid constant name "free" (invalid-name)
C: 6, 0: Invalid constant name "temp_free" (invalid-name)
C: 7, 0: Invalid constant name "bricks" (invalid-name)
C: 12, 8: Invalid attribute name "x" (invalid-name)
C: 13, 8: Invalid attribute name "y" (invalid-name)
C: 10, 0: Missing class docstring (missing-docstring)
C: 11, 4: Invalid argument name "x" (invalid-name)
C: 11, 4: Invalid argument name "y" (invalid-name)
W: 12, 8: Attribute 'x' defined outside __init__ (attribute-defined-outside-init)
W: 13, 8: Attribute 'y' defined outside __init__ (attribute-defined-outside-init)
R: 10, 0: Too few public methods (0/2) (too-few-public-methods)
C: 16, 0: Missing class docstring (missing-docstring)
C: 37, 4: Missing method docstring (missing-docstring)
C: 49,21: Consider changing "not type(board[i][j]) is int" to "type(board[i][j]) is not int" (unneeded-not)
C: 49,25: Using type() instead of isinstance() for a typecheck.
(unidiomatic-typecheck)
C: 56, 4: Missing method docstring (missing-docstring)
R: 56, 4: Method could be a function (no-self-use)
C: 59, 4: Missing method docstring (missing-docstring)
C: 60, 8: Invalid variable name "N" (invalid-name)
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C: 62,12: Invalid variable name "x" (invalid-name)
C: 66,12: Invalid variable name "x" (invalid-name)
W: 61,12: Unused variable 'num' (unused-variable)
R: 59, 4: Method could be a function (no-self-use)
C: 74, 4: Missing method docstring (missing-docstring)
C: 78, 4: Missing method docstring (missing-docstring)
W: 1, 0: Unused Fore imported from colorama (unused-import)
C: 2, 0: standard import "from random import randint" comes before "from colorama
import Fore" (wrong-import-order)
C: 3, 0: standard import "import os" comes before "from colorama import Fore"
(wrong-import-order)
***** Module bomb
C: 39, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 41, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)
C: 45, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)
C: 47, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)
C: 59, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 61, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)
C: 63, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)
C: 1, 0: Missing module docstring (missing-docstring)
W: 1, 0: Wildcard import game (wildcard-import)
E: 6, 0: class already defined line 1 (function-redefined)
C: 9, 8: Invalid attribute name "y" (invalid-name)
C: 8, 8: Invalid attribute name "x" (invalid-name)
C: 6, 0: Missing class docstring (missing-docstring)
C: 15, 4: Missing method docstring (missing-docstring)
W: 15,21: Unused argument 'score' (unused-argument)
C: 23, 4: Invalid argument name "x" (invalid-name)
C: 23, 4: Invalid argument name "y" (invalid-name)
C: 23, 4: Invalid argument name "c" (invalid-name)
C: 23, 4: Missing method docstring (missing-docstring)
C: 34, 4: Missing method docstring (missing-docstring)
C: 37,12: Invalid variable name "u" (invalid-name)
C: 38,16: Invalid variable name "v" (invalid-name)
C: 53, 4: Missing method docstring (missing-docstring)
C: 56, 8: Invalid variable name "x" (invalid-name)
C: 57,12: Invalid variable name "u" (invalid-name)
C: 58,16: Invalid variable name "v" (invalid-name)
C: 60,20: Invalid variable name "x" (invalid-name)
R: 67, 4: Method could be a function (no-self-use)
W: 1, 0: Unused import Enemy from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import os from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import alarmHandler from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import signal from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import Bomb from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import input_to from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import copy from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import Game from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import bricks from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import Person from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import Fore from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import M from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import g from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import sys from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import randint from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import AlarmException from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import Bomberman from wildcard import (unused-wildcard-import)
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W: 1, 0: Unused import print_function from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import GetchUnix from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import free from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import Brick from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import Board from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import getch from wildcard import (unused-wildcard-import)
C: 2, 0: standard import "import time" comes before "from game import *"
(wrong-import-order)
***** Module enemy
C: 14, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 20, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 35, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 41, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 42, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 44, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)
C: 46, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)
C: 47, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 49, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)
C: 51, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)
C: 52, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 54, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)
C: 56, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)
C: 57, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 59, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)
C: 1, 0: Missing module docstring (missing-docstring)
W: 1, 0: Wildcard import person (wildcard-import)
W: 2, 0: Wildcard import board (wildcard-import)
C: 5, 0: Missing class docstring (missing-docstring)
E: 10,17: Undefined variable 'x' (undefined-variable)
C: 12, 4: Missing method docstring (missing-docstring)
C: 17, 4: Invalid argument name "x" (invalid-name)
C: 17, 4: Invalid argument name "y" (invalid-name)
C: 17, 4: Missing method docstring (missing-docstring)
C: 18, 8: Invalid variable name "u" (invalid-name)
C: 19, 8: Invalid variable name "v" (invalid-name)
C: 33, 8: Invalid variable name "x" (invalid-name)
C: 34, 8: Invalid variable name "y" (invalid-name)
C: 40, 4: Invalid argument name "x" (invalid-name)
C: 40, 4: Invalid argument name "xu" (invalid-name)
C: 40, 4: Invalid argument name "yu" (invalid-name)
C: 40, 4: Missing method docstring (missing-docstring)
W: 1, 0: Unused import bricks from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import Bomberman from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import os from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import free from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import Brick from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import Board from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import Fore from wildcard import (unused-wildcard-import)
W: 1, 0: Unused import randint from wildcard import (unused-wildcard-import)
***** Module game
C: 60, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 61, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 62, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 68, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)
C: 69, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 70, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 76, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)
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C: 77, 0: Unnecessary parens after 'if' keyword (superfluous-parens)  
C: 78, 0: Unnecessary parens after 'if' keyword (superfluous-parens)  
C: 84, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)  
C: 85, 0: Unnecessary parens after 'if' keyword (superfluous-parens)  
C: 86, 0: Unnecessary parens after 'if' keyword (superfluous-parens)  
C: 92, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)  
C: 98, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)  
C:101, 0: Unnecessary parens after 'if' keyword (superfluous-parens)  
C:104, 0: Unnecessary parens after 'if' keyword (superfluous-parens)  
C:110, 0: Unnecessary parens after 'if' keyword (superfluous-parens)  
C:119, 0: Unnecessary parens after 'if' keyword (superfluous-parens)  
C:128, 0: Unnecessary parens after 'if' keyword (superfluous-parens)  
C:129, 0: Unnecessary parens after 'if' keyword (superfluous-parens)  
C:130, 0: Unnecessary parens after 'if' keyword (superfluous-parens)  
C:140, 0: Unnecessary parens after 'if' keyword (superfluous-parens)  
C:143, 0: Unnecessary parens after 'if' keyword (superfluous-parens)  
C: 1, 0: Missing module docstring (missing-docstring)  
W: 1, 0: Wildcard import person (wildcard-import)  
W: 2, 0: Wildcard import bomb (wildcard-import)  
W: 6, 0: Wildcard import enemy (wildcard-import)  
W: 7, 0: Wildcard import getchunix (wildcard-import)  
W: 8, 0: Wildcard import alarmexception (wildcard-import)  
C: 10, 0: Invalid constant name "getch" (invalid-name)  
C: 13, 0: Invalid function name "alarmHandler" (invalid-name)  
C: 13, 0: Missing function docstring (missing-docstring)  
W: 13,17: Unused argument 'signum' (unused-argument)  
W: 13,25: Unused argument 'frame' (unused-argument)  
C: 17, 0: Missing function docstring (missing-docstring)  
W: 25, 8: String statement has no effect (pointless-string-statement)  
C: 33, 0: Missing class docstring (missing-docstring)  
R: 33, 0: Too many instance attributes (10/7) (too-many-instance-attributes)  
C: 40,24: Invalid variable name "N" (invalid-name)  
C: 44,12: Invalid variable name "r" (invalid-name)  
C: 49, 4: Missing method docstring (missing-docstring)  
C: 50,12: Invalid variable name "r" (invalid-name)  
C: 56, 8: Invalid variable name "c" (invalid-name)  
C: 58,12: Invalid variable name "x" (invalid-name)  
C: 59,12: Invalid variable name "ar" (invalid-name)  
C: 97,16: Invalid variable name "c" (invalid-name)  
C:103,20: Invalid variable name "r" (invalid-name)  
C:107,24: Invalid variable name "e" (invalid-name)  
W:117,24: Access to a protected member \_del\_ of a client class (protected-access)  
R: 57, 8: Too many nested blocks (6/5) (too-many-nested-blocks)  
C:124,20: Invalid variable name "r" (invalid-name)  
C:125,20: Invalid variable name "xu" (invalid-name)  
C:126,20: Invalid variable name "yu" (invalid-name)  
C:127,20: Invalid variable name "ra" (invalid-name)  
R: 57, 8: Too many nested blocks (6/5) (too-many-nested-blocks)  
R: 49, 4: Too many branches (34/12) (too-many-branches)  
R: 49, 4: Too many statements (88/50) (too-many-statements)  
R: 33, 0: Too few public methods (1/2) (too-few-public-methods)  
C:149, 4: Invalid constant name "g" (invalid-name)  
W: 1, 0: Unused import Person from wildcard import (unused-wildcard-import)  
W: 1, 0: Unused import Brick from wildcard import (unused-wildcard-import)  
W: 1, 0: Unused import Fore from wildcard import (unused-wildcard-import)  
W: 2, 0: Unused import NUM\_TICKS from wildcard import (unused-wildcard-import)  
W: 4, 0: Unused import sys (unused-import)

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W: 7, 0: Unused import copy from wildcard import (unused-wildcard-import)
C: 3, 0: standard import "import time" comes before "from person import *"
(wrong-import-order)
C: 4, 0: standard import "import sys" comes before "from person import *"
(wrong-import-order)
C: 9, 0: standard import "from random import randint" comes before "from person
import *" (wrong-import-order)
***** Module getchunix
C: 1, 0: Missing module docstring (missing-docstring)
C: 9, 0: Missing class docstring (missing-docstring)
W: 14, 8: Redefining name 'sys' from outer scope (line 4) (redefined-outer-name)
W: 14, 8: Reimport 'sys' (imported line 4) (reimported)
C: 17, 8: Invalid variable name "fd" (invalid-name)
C: 21,12: Invalid variable name "ch" (invalid-name)
R: 9, 0: Too few public methods (0/2) (too-few-public-methods)
W: 2, 0: Unused import signal (unused-import)
W: 3, 0: Unused import copy (unused-import)
W: 4, 0: Unused import sys (unused-import)
W: 5, 0: Unused import time (unused-import)
W: 6, 0: Unused randint imported from random (unused-import)
***** Module person
C: 15, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 19, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)
C: 44, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 62, 0: Unnecessary parens after 'if' keyword (superfluous-parens)
C: 66, 0: Unnecessary parens after 'elif' keyword (superfluous-parens)
C: 1, 0: Missing module docstring (missing-docstring)
W: 2, 0: Wildcard import board (wildcard-import)
C: 8, 8: Invalid attribute name "x" (invalid-name)
C: 9, 8: Invalid attribute name "y" (invalid-name)
C: 6, 0: Missing class docstring (missing-docstring)
C: 12, 4: Invalid argument name "dx" (invalid-name)
C: 12, 4: Invalid argument name "dy" (invalid-name)
C: 12, 4: Missing method docstring (missing-docstring)
C: 13, 8: Invalid variable name "x" (invalid-name)
C: 14, 8: Invalid variable name "y" (invalid-name)
E: 16,12: Instance of 'Person' has no 'populate' member (no-member)
C: 23, 4: Missing method docstring (missing-docstring)
C: 27, 0: Missing class docstring (missing-docstring)
C: 31, 4: Invalid argument name "x" (invalid-name)
C: 31, 4: Invalid argument name "y" (invalid-name)
C: 31, 4: Missing method docstring (missing-docstring)
R: 31, 4: Method could be a function (no-self-use)
C: 39, 4: Invalid argument name "fx" (invalid-name)
C: 39, 4: Invalid argument name "fy" (invalid-name)
C: 39, 4: Missing method docstring (missing-docstring)
C: 40, 8: Invalid variable name "y" (invalid-name)
C: 41, 8: Invalid variable name "x" (invalid-name)
C: 42, 8: Invalid variable name "u" (invalid-name)
C: 43, 8: Invalid variable name "v" (invalid-name)
C: 60, 8: Invalid variable name "x" (invalid-name)
C: 61, 8: Invalid variable name "y" (invalid-name)
W: 2, 0: Unused import bricks from wildcard import (unused-wildcard-import)
W: 2, 0: Unused import os from wildcard import (unused-wildcard-import)
W: 2, 0: Unused import free from wildcard import (unused-wildcard-import)
W: 2, 0: Unused import Brick from wildcard import (unused-wildcard-import)
W: 2, 0: Unused import Board from wildcard import (unused-wildcard-import)
```

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W:  2, 0: Unused import Fore from wildcard import (unused-wildcard-import)
W:  2, 0: Unused import randint from wildcard import (unused-wildcard-import)
C:  3, 0: standard import "import os" comes before "from board import *"
(wrong-import-order)
R:  1, 0: Similar lines in 2 files
==alarmexception:0
==getchunix:0
from __future__ import print_function
import signal
import copy
import sys
import time
from random import randint

(duplicate-code)
R:  1, 0: Similar lines in 3 files
==enemy:31
==person:11
==person:58
def move(self, dx, dy):
    x = self.x + dx
    y = self.y + dy
    if((x, y) in temp_free):
        self.populate(x, y)
        temp_free.remove((x, y))
        temp_free.append((x - dx, y - dy)) (duplicate-code)

```

## Report

396 statements analysed.

## Statistics by type

type	number	old number	difference	%documented	%badname
module	7	7	=	0.00	0.00
class	9	9	=	0.00	0.00
method	32	32	=	46.88	0.00
function	2	2	=	0.00	50.00

## External dependencies

```
::
```

```
colorama (board)
getch (game)
```

## Raw metrics

```
+-----+-----+-----+-----+-----+
|type      |number |%      |previous |difference |
+-----+-----+-----+-----+-----+
|code      |429    |89.00  |429      |=          |
+-----+-----+-----+-----+-----+
|docstring |0      |0.00   |0        |=          |
+-----+-----+-----+-----+-----+
|comment   |0      |0.00   |0        |=          |
+-----+-----+-----+-----+-----+
|empty     |53     |11.00  |53       |=          |
+-----+-----+-----+-----+-----+
```

## Duplication

```
+-----+-----+-----+-----+
|              |now    |previous |difference |
+-----+-----+-----+-----+
|nb duplicated lines |22     |22       |=          |
+-----+-----+-----+-----+
|percent duplicated lines |4.701  |4.701    |=          |
+-----+-----+-----+-----+
```

## Messages by category

```
+-----+-----+-----+-----+
|type      |number |previous |difference |
+-----+-----+-----+-----+
|convention |167    |167      |=          |
+-----+-----+-----+-----+
|refactor   |14     |14       |=          |
+-----+-----+-----+-----+
|warning    |74     |74       |=          |
+-----+-----+-----+-----+
|error      |3      |3        |=          |
+-----+-----+-----+-----+
```

## % errors / warnings by module

```
+-----+-----+-----+-----+-----+
|module      |error  |warning  |refactor  |convention |
+-----+-----+-----+-----+-----+
|bomb        |33.33  |33.78    |7.14      |14.97      |
+-----+-----+-----+-----+-----+
```

enemy	33.33	13.51	0.00	17.37	
+-----+	+-----+	+-----+	+-----+	+-----+	+
person	33.33	10.81	21.43	17.37	
+-----+	+-----+	+-----+	+-----+	+-----+	+
game	0.00	20.27	42.86	28.14	
+-----+	+-----+	+-----+	+-----+	+-----+	+
getchunix	0.00	9.46	7.14	2.40	
+-----+	+-----+	+-----+	+-----+	+-----+	+
alarmexception	0.00	6.76	0.00	1.20	
+-----+	+-----+	+-----+	+-----+	+-----+	+
board	0.00	5.41	21.43	18.56	
+-----+	+-----+	+-----+	+-----+	+-----+	+

## Messages

+-----+	+-----+
message id	occurrences
+=====+	+=====+
invalid-name	65
+-----+	+-----+
superfluous-parens	58
+-----+	+-----+
unused-wildcard-import	43
+-----+	+-----+
missing-docstring	35
+-----+	+-----+
unused-import	12
+-----+	+-----+
wildcard-import	9
+-----+	+-----+
wrong-import-order	7
+-----+	+-----+
no-self-use	4
+-----+	+-----+
unused-argument	3
+-----+	+-----+
too-few-public-methods	3
+-----+	+-----+
too-many-nested-blocks	2
+-----+	+-----+
duplicate-code	2
+-----+	+-----+
attribute-defined-outside-init	2
+-----+	+-----+
unused-variable	1
+-----+	+-----+
unneeded-not	1
+-----+	+-----+
unidiomatic-typecheck	1
+-----+	+-----+
undefined-variable	1
+-----+	+-----+
too-many-statements	1
+-----+	+-----+
too-many-instance-attributes	1
+-----+	+-----+



```
+-----+-----+
|too-many-branches      |1      |
+-----+-----+
|reimported            |1      |
+-----+-----+
|redefined-outer-name   |1      |
+-----+-----+
|protected-access       |1      |
+-----+-----+
|pointless-string-statement |1      |
+-----+-----+
|no-member              |1      |
+-----+-----+
|function-redefined     |1      |
+-----+-----+
```

## Global evaluation

Your code has been rated at 3.18/10 (previous run: 3.18/10, +0.00)