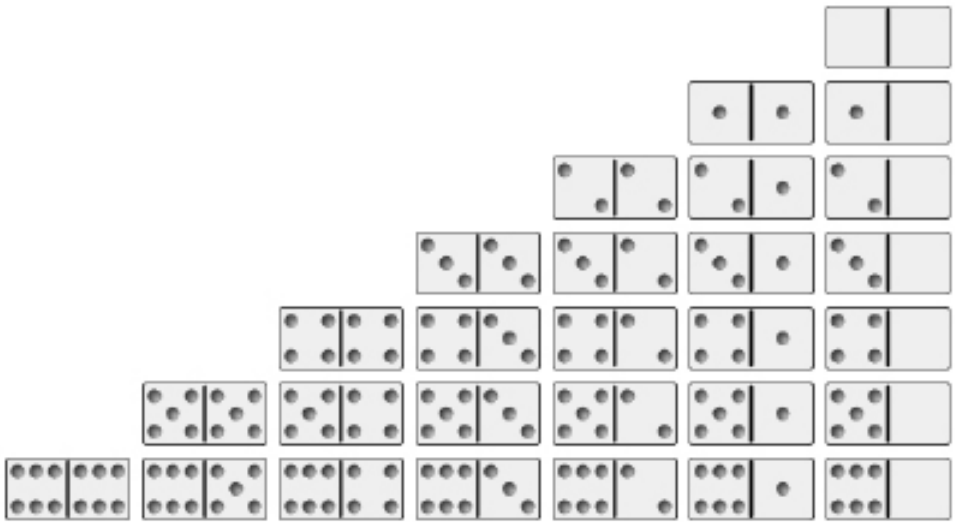
3676 Domino

A set of double-six dominoes with 28 tiles is the most popular size of dominoes set. In a double-six domino set, the numbers on the tiles range from 0 (or blank) to 6. In a double-six set, there are seven suits (0 or blank, 1, 2, 3, 4, 5, 6), each with seven members.



The game can be started with any tile. Until the first double played, the game layout has only 2 "end" opens. After the first double played (which is called *spinner*), the game can be played on two additional edges (the game layout has 4 "open" ends now). All subsequent doubles can only played as other tiles except that its value is counted twice when calculating the score of the game layout.

In one play turn, a tile can be added to an "open" end if the number of points in the added head of the tile matches the number of points in this "open" end.

The Domino game usually is played by at least 2 persons. Let's consider a game played by just a single person. The object of the game is to create as much as possible situations where the open ends of the game layout added up to a multiple of five (5, 10, 15, 20, etc.). The score at each play turn is the total sum of open ends when they added up to a multiple of five. This score is added up to the current score of the game.

In this case, the game is quite simple. At first, a sequence of 28 tiles in random order is given. Then the tiles are taken from the sequence one by one. For each tile, the player might add it into the game layout or leave it out.

Your task is to write a program to play the game in order to obtain the highest total score.

Input

The input consists of several data sets. The first line of the input file contains the number of data sets which is a positive integer and is not bigger than 20.

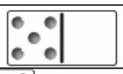
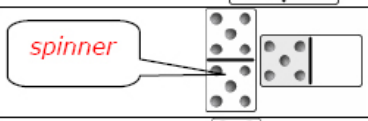
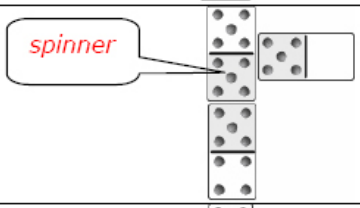
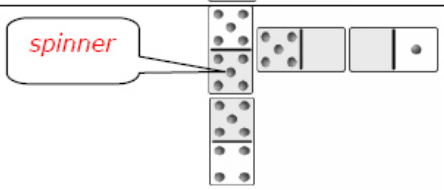
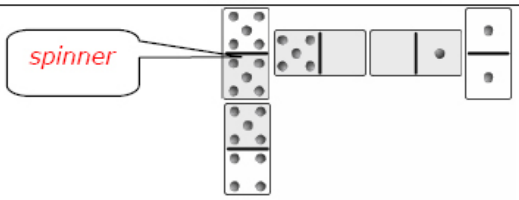
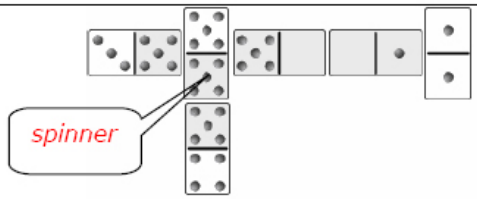
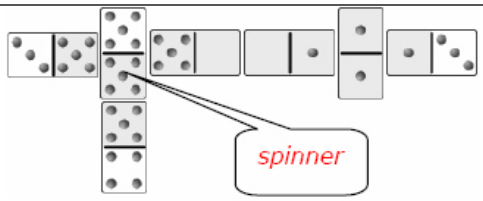
The following lines describe the data sets. For each data set, a single line contains 56 numbers separated by space represents 28 tiles of the game, 2 consecutive numbers for each tile.

Output

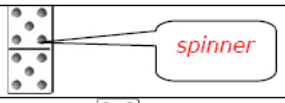
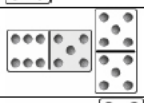
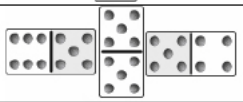
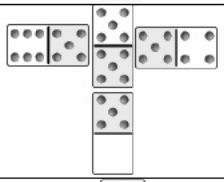
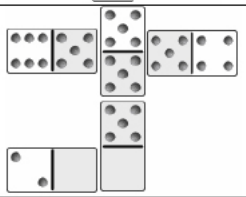
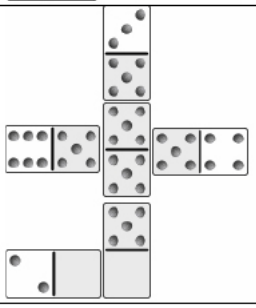
For each data set, write in one line the highest score that can be obtained.

Notes:

Examples of how to calculate the score at each play turn:

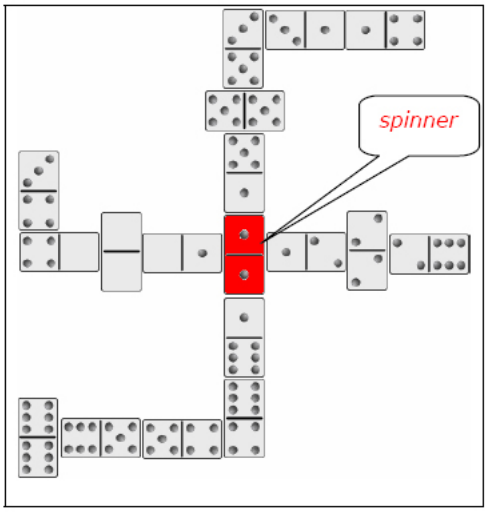
Tiles	Layout	sum of open ends	Total Score
(0,5)		**5+0 = 5**	**5**
(0,5) (5,5)		**5 + 5 + 0 + 0 = 10**	**15**
(0,5) (5,5) (4,5)		5 + 4 + 0 + 0 = 9 (gain 0)	15
(0,5) (5,5) (4, 5) (0,1)		**5+4+1+0 = 10**	**25**
(0,5) (5,5) (4, 5) (0,1) (1,1)		Current added double (1,1) tile gives 2×1 scores: 5+4+2×1+0 = 11 (gain 0)	**25**
(0,5) (5,5) (4,5) (0,1) (1,1) (5,3)		**5+3+4+2×1 = 14** (gain 0)	25
(5,0) (5,5) (5,4) (0,1) (1,1) (5,3) (1,3)		**5+3+4+3 = 15**	**40**

Examples of how to calculate the score at each play turn:

Tiles/	**Layout**	**sum of open ends**	**Total Score**
(5,5)		There are 4 open ends: two of which give 2×5 scores and two others give 2×0 scores **5+5+0+0 =10**	**10**
(5,5) (5,6)		5+6+5+0 = 16 (gain 0)	10
(5,5) (5,6) (5,4)		**5+6+5+4 = 20**	**30**
(5,5) (5,6) (4,5) (0,5)		**5+6+0+4 = 15**	**45**
(5,5) (5,6) (4,5) (0,5) (0,2)		5+6+2+4 = 17 (gain 0)	**45**
(5,5) (5,6) (4,5) (0,5) (0,2) (3,5)		**3+6+2+4 = 15**	**60**

The game layout to obtain the highest score for the first data set in the sample input

Tile played	(0,1)	(1,1)	(1,6)	(4,6)	(1,5)
Current score	0	0	0	5	5
Tile played	(4,5)	(0,0)	(5,6)	(0,4)	(5,5)
Current score	15	25	25	40	60
Tile played	(3,4)	(6,6)	(1,2)	(3,5)	(2,2)
Current score	60	85	85	105	105
Tile played	(1,3)	(1,4)	(2,6)		
Current score	125	125	150		

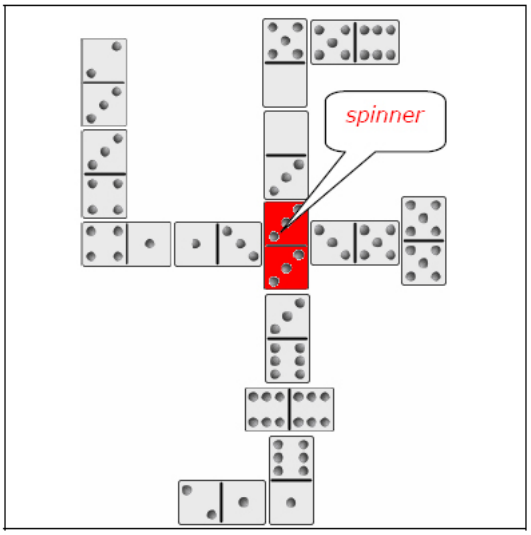


The game layout to obtain the highest score for the second data set in the sample input

Tile played	(3,3)	(3,5)	(3,6)	(1,3)	(5,5)
Current score	0	0	0	15	35

Tile played	(0,3)	(1,4)	(0,5)	(3,4)	(5,6)
Current score	35	55	80	80	105

Tile played	(6,6)	(1,6)	(1,2)	(2,3)
Current score	105	125	125	145



Sample Input

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2
013625111603240544606152345005604335534026612352213142 6
153322240611350236135504032545442614054600013456661612 23
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Sample Output

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150
145
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