THE TIPPING POINT

You are given a common die sitting on a table in a specific orientation. It sits on the table in front of you with a 1 showing on its top face, a 2 showing on its front face, and a 3 showing on its right face. Because the die is ordinary you should know that the total of the numbers on opposite sides of the die add up to 7. Thus the die has a 4 on its left face, a 5 on its back face, and a 6 hidden on its bottom face resting on the table.

The die can tip over to reveal a new number based upon the direction of tipping. You can tip the die AWAY, TOWARD, LEFT or RIGHT. The table below shows the result of each tip given the initial placement described earlier.

AWAY	TOWARD	LEFT	RIGHT
2 on top, 6 in front and 3 on right	5 on top, 1 in front and 3 on right	3 on top, 2 in front and 6 on right	4 on top, 2 in front and 1 on right

Given the initial die configuration and a sequence of tip instructions, you must determine the number that remains on the top face of the die after all tips have been completed.

Sample input data (tipping.txt)
AWAY
TOWARD
RIGHT
LEFT
AWAY

Sample Output:
AWAY
TOWARD
RIGHT
LEFT
AWAY

Final Top Face Value is 2

Judge Data Set 1 – Input

AWAY
LEFT
LEFT
TOWARD
RIGHT
TOWARD

Judge Data Set 1 -Output (100 marks)

AWAY
LEFT
LEFT
TOWARD
RIGHT
TOWARD

Final Top Face Value is 2

Judge Data Set 2 – Input

LEFT
TOWARD
RIGHT

Judge Data Set 2 – Output (100 marks)

LEFT
TOWARD
RIGHT

Final Top Face Value is 1