It turns out that the strategy for winning the Calendar Game is similar to the strategy for winning
the game Rook to the Top (that we played on March 23). You might want to refresh your memory
by having a look at the strategy for Rook to the Top.

In Rook to the Top, we played on an 8 by 8 grid. In some sense, we can also think of the Calendar
Game as being played on a “grid”. In this case it will be a 12 by 31 grid with some spaces not open
for play.

Notice that the grid has a row for each of the 12 months, and the rows contain either 29, 30 or 31
squares, depending on how many days are in that particular month (in 2020). The diagonal that is
highlighted on the grid is the one we will focus on for the winning strategy of this game. We will
refer to it as the winning diagonal.

The winning diagonal consists of the following dates:

<table>
<thead>
<tr>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>21</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>28</td>
<td>29</td>
<td>30</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Since Player 1 must say “January 1”, we see that the first “move” lands off of the winning diagonal.
Player 2 can then “move” onto the winning diagonal by saying “January 20”. Now Player 1 must
change either the month or the day (but not both) and so any allowed date will represent a move off
of the winning diagonal. If they change the month, this corresponds to a vertical move upwards and
if they change the day, this corresponds to a horizontal move to the right. Player 2 can now choose
the appropriate date from the table above to move back onto the winning diagonal. For example,
if Player 1 changes the month and says “May 20”, Player 2 can then change the day and say “May
24” (from the table above). If instead Player 1 changes the day and says “January 27”, Player 2 can
then change the month and say “August 27” (from the table above).

Repeating this process, Player 1 will always have to move off of the winning diagonal, and Player 2
will always be able to return to the winning diagonal, closer to December 31. Since there are a finite
number of dates to choose from, Player 2 will eventually say December 31.

Thus, Player 2 has a winning strategy for this game.