3 An algorithm will output the **last** three lines from a text file `Result.txt`

The lines need to be output in the same order as they appear in the file.

Assume:

- Three variables `LineX`, `LineY` and `LineZ` will store the three lines. These are of type string and all three variables have been initialised to an empty string.
- The file exists and contains **at least** three lines.

(a) The algorithm to output the lines is expressed in eight steps.

Complete the steps.

1. Open the file .....
2. Loop until .....
3. ..... and store in `ThisLine`
4. Assign `LineY` to `LineX`
5. Assign `LineZ` to `LineY`
6. Assign `ThisLine` to `LineZ`
7. After the loop, ...
8. Output `LineX`, `LineY`, `LineZ`

[4]

(b) Explain the purpose of steps 4, 5 and 6 in the algorithm from part **(a)**.

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..... [1]

(c) The requirement changes, and the algorithm will now output three lines from the file, starting from a **given** line number.

The modified algorithm will be implemented as a function which will:

- be called with an integer parameter representing the given line number
- output three lines, starting at the given line
- return `TRUE` if the 3 lines are output, or `FALSE` if it was not possible to output the 3 lines.

Describe the changes that need to be made to **steps 2 to 8** of the algorithm given in part **(a)**.

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