

Q4

Convert the denary number 154 to binary.

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..... [2]

Q5

Julie is writing a computer game that simulates a 100m race. Each time the space bar is pressed, the position of the player moves up by 1. When the position reaches 100, the player has won.

Here is Julie's algorithm for the program

```

CONST PlayerKey = " "
Position = 0
REPEAT
  INPUT KeyPressed
  If KeyPressed = PlayerKey THEN
    Position = Position + 1
  END IF
UNTIL Position = 100

```

(a) State an example of a constant and a variable in the algorithm above.

Constant

Variable [2]

Q6

State what is meant by selection and iteration using examples from Julie's algorithm.

Selection

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Example

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Iteration

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Example

..... [4]