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| INP15 – Prompt for the count of sides S the squiral should have, store in the designated memory location | STA23 – Store the distance value in the designated location to make turtle begin drawing line | SKP03 – Skip the jump instruction if the accumulator value (remaining sides) is 0 | Memory location reserved for the line length L to be used |
| INP18 – Prompt for the length L the first line should have, store it in the designated location | ADD17 – Add the distance constant increment value to the accumulator | JMP03 – Jump to location 03 to create a loop | Memory location reserved for the turtle turn angle value (90) |
| JMP05 – Jump over turtle angle commands as it is the first pass through the loop and turtle shouldn’t turn | STA18 – Store the next distance value to the designated location | STP – Stop program execution |  |
| LDA19 – Load the accumulator with the constant angle value for turtle to turn | LDA15 – Load the accumulator with the remaining side count | Memory reserved for the count of squiral sides S left to create | Memory location reserved for the line color value (default = 248) |
| STA22 – Store the angle value in the designated location for turtle’s turning | SUB16 – Decrement the remaining side count S | Memory reserved for the constant count decrementer value (1) | Memory location where the turn angle will be loaded (initialize to 0) |
| LDA18 – Load the register with the current distance turtle will draw | STA15 – Store the remaining side count S for later | Memory location reserved for the distance incrementing constant value (2) | Memory location where the line distance is loaded; turtle activates when data is stored here |

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| INP15 – Input the number of sides S the sawtooth will have and store it in the designated location | LDA18 – Load the register with the distance turtle will draw | JMP02 – Jump to location 02 to create a loop | Memory location reserved for the constant line length to be used (6) |
| JMP06 – Jump over the angle processing commands for the first run of the loop | STA23 – Store the distance value in the designated location to make turtle begin drawing line | STP – Stop program execution | Memory location reserved for the turtle turn angle value most recently used (initialize to -90) |
| LDA19 – Load the accumulator with the most recent angle value | LDA15 – Load the accumulator with the remaining side count |  |  |
| MUL17 – Multiply the angle value by the angle switching constant (-1) to switch turtle angle | ADD17 – Decrement the remaining side count |  | Memory location reserved for the line color value (default = 248) |
| STA22 – Store the new angle value to be used | STA15 – Store the remaining side count for later | Memory location reserved for the number of sides S left to draw | Memory location where the turn angle will be loaded (initialize to 45) |
| STA19 – Store the angle value to be used so we can know what the most recently used one was | SKP03 – Skip the jump instruction if the accumulator value (remaining sides) is 0 | Memory location reserved for the angle switching constant multiplier / decrementer value  (-1) | Memory location where the line distance is loaded; turtle activates when data is stored here |

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| INP24 – Prompt for number of star points | MUL18 – Multiply the distance value by the switching constant (-1) to switch turtle direction | SKP03 – Skip the jump instruction if the accumulator value (remaining side) == 0 | Memory location reserved for the angle switching constant multiplier / decrementer value  (-1) |
| MUL17 – Convert the number of points to the number of sides | STA23 – Store the distance value in the designated location to make turtle begin drawing line | JMP05 – Jump to location 02 to create a loop | Memory location reserved for the user input line length L to be used |
| STA16 – Store the side count value in its designated location | STA19 – Save the most recent line length in the designated location | STP – Stop program execution |  |
| INP19 – Prompt for the length of star lines | LDA16 – Load the accumulator with the remaining side count |  | Memory location reserved for the line color value (default = 248) |
| JMP07 – Jump over the distance processing commands | ADD18 – Decrement the remaining side count | Memory location reserved for the number of sides S left to draw | Memory location where the turn angle will be loaded (initialize to 30) |
| LDA19 – Load the register with the distance turtle will draw | STA16 – Store the remaining side count for later | Memory location reserved for the constant multiplier (2) for converting points -> sides | Memory location where the line distance is loaded; turtle activates when data is stored here |

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| INP18 | STP |  | Memory reserved for the constant decrementer value  (-1) |
| LDA18 |  |  | Memory location reserved for the user input original starting sound value S |
| STA20 |  |  | Memory location designated for the sound value to be generated |
| ADD17 |  |  |  |
| SKP03 – while != 0 |  |  |  |
| JMP02 |  |  |  |

1 Low - 37 high