**Solve these problems in LMC and explain your solution**

Write the following programs in LMC. Enter the assembly code instructions you used in the column titled, ‘assembly language’. Explain what the command is doing in the explanation column so it makes sense to someone reading your program.

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| **Output the numbers 50 to 0 in descending order.** |
| Assembly language | Explanation |
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| **Output the numbers 0 to 10 in ascending order stopping at 10. The program should also be able to count up to 100 and stop.** |
| Assembly language | Explanation |
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| **Input a number then count up to that number in steps of 2, outputting the sequence.** |
| Assembly language | Explanation |
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| **Input 2 numbers and check if they are the same. If they are then the program should output the number 1. If they are not then the program should output the number 0.** |
| Assembly language | Explanation |
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