Make algorithms shorter

Name: _____

Compare Algorithm 1 and Algorithm 2. Then, answer the questions.

Algorithm 1

Step	Instruction
1	Start program when Green Flag is clicked
2	Show image of butterfly with its wings up for $\frac{1}{2}$ second
3	Show image of butterfly with its wings down for $\frac{1}{2}$ second
4	Show image of butterfly with its wings up for $\frac{1}{2}$ second
5	Show image of butterfly with its wings down for $\frac{1}{2}$ second
6	Show image of butterfly with its wings up for $\frac{1}{2}$ second
7	Show image of butterfly with its wings down for $\frac{1}{2}$ second
8	Show image of butterfly with its wings up for $\frac{1}{2}$ second
9	Show image of butterfly with its wings down for $\frac{1}{2}$ second
10	Show image of butterfly with its wings up for $\frac{1}{2}$ second
11	Show image of butterfly with its wings down for $\frac{1}{2}$ second
12	Stop program

Algorithm 2

Step	Instruction
1	Start program when Green Flag is clicked
2	Show image of butterfly with its wings up for $\frac{1}{2}$ second
3	Show image of butterfly with its wings down for $\frac{1}{2}$ second
4	Repeat Steps 2 and 3 four more times
5	Stop program

Questions

1 Which algorithm is shorter? _____

2 How many steps are there in each algorithm? _____ and _____

3 Which algorithm has an iteration? _____

4 Do both algorithms have the same output? _____

5 What step in algorithm 2 made it shorter? _____

6 What type of loop is it? _____

7 Which one would be easier to convert to code? _____

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