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Summary

Our machine takes a certain number of a's (aaaaa for example), and returns 1 (true) if it's prime and 0 (false) if it's composite. We first take the number and make sure that it's greater or equal to two. If it's not greater than one, then we return false for one and zero. If it's greater than two, then we test multiple numbers on it for divisibility. We start with two and work out way up to N (number of a's). We store the number of a's to the left on the tape separated them with a blank. If any of the numbers makes N divisible, then execution is stopped and 0 is returned. Otherwise, it tests until the number of a's on the left equals the number on the right. We created another loop that tests where or not the number of a's on the left and right are equal; if they are, then we return a 1 because that means the number is prime. If they aren't equal, it will continue on to test the divisiblity between the left and right side of the tape.