

Write a program to check if a number “N” can be written in sum of the powers of 5. The coefficients of 5^p should always be 1 and p should be unique in the summation series.

$$N = \sum 5^p$$

If representation is not possible; print “**Failed**”.

If representation is possible; print “**Passed**”.

Print for the below Numbers if they pass or fail the test and record your output.

Test Number	Output
394376	
421875	
390625	
781250	
484377	

Please send the output table along with your program to the coordinator.

Example:

31, 26 and 130 pass the test because they can be written as summation of powers of 5 with coefficients 1.

$$31 = 5^2 + 5^1 + 5^0$$

$$26 = 5^2 + 5^0$$

$$130 = 5^3 + 5^1$$

35 fails the test because it cannot be written in sum of powers of 5 with coefficients 1. Here, the coefficient of 5^1 is 2; thus it fails the test.

$$35 = 5^2 + 2 \times 5^1$$

128 fails the test because it cannot be written in the sum of powers of 5 with coefficients 1. Here, the coefficient of 5^0 is 3; thus it fails the test.

$$128 = 5^3 + 3 \times 5^0$$

Example Output:

Test Number	Output
31	PASSED
26	PASSED
130	PASSED
35	FAILED
128	FAILED