Biology Challenge #1

You are working as a computational biologist in Dar es Salaam, and you have been asked to help solve an emergency at the company you work for. The person in charge of backing up your company's data has made a mistake, and as a result, thousands of files containing DNA sampled from a zebra have been lost.

After looking at the files that the company still has, you realize that the lost files only contained data for *one of the DNA strands*. You know from your education in biology that it's possible to reconstruct the lost second strand based on the nucleobases in the first: adenine (A) always pairs with thymine (T), and cytosine (C) always pairs with guanine (G).

Write a Python program that asks the user for a sequence of nucleobases from one strand of DNA, then outputs the corresponding complementary strand. For instance, if your program were given the following strand by the user:

ACTCGGACGTA

it should output the following correct complementary strand:

TGAGCCTGCAT

Your program will be used to recreate the thousands of files that were lost, so you should write it such that someone can give it *any* DNA strand in order to reconstruct the missing DNA they need.