

Titans invitational 2024 prep material

Heads or Tails (text→ascii/Unicode→binary→text representing binary)

1.

You have an unlimited bag of coins and you would like to leave a secret message to a friend. You will leave the coins on a table in order with heads representing 1 and tails representing 0. Write a program that will take a text file and convert it to a text file indicating the order of heads and tails to encode the text as a binary representation of the ascii values of each character. Put a space between each character, represent space and new line in ascii.

Sample input	Sample output
This is that	HTHTHTT HHTHTTT HHTHTTH HHHTTHH HTTTTT HHTHTTH HHHTTHH HTTTTT HHHTHTT HHTHTTT HHTTTTH HHHTHTT

2.

You have entered a room and your friend has left you a secret message using coins as a binary representation of the ascii values of the message. Write a program that will decode the message.

Sample input:	Sample Output:
HTHTTHT HHHTHTH HHTHHHT HTTTTT HHTHTH HHHTHHT HHTHTH HHHTTHT HHHHTTH HTTTTT HHTTHTT HHTTTTH HHHHTTH	Run every day

At the contest, when your solution is judged, you will be provide with text file (.txt) that contains 10 test cases of input, each on a new line. Your program must read the file and produce 10 lines of output to the screen.