

Name: \_\_\_\_\_

Read carefully the problem, then identify the important parts, make a **model**, and a **flow chart**. Remember to describe all the passages that brings you to give a certain answer (why a certain value is an input, where you found information on the data type, why you made a certain choice, etc...).

Write a program that let you calculate and print the powers from  $b^0$  to a certain  $b^n \leq \max$ , for integers  $n \geq 0$  and for given  $b$  and  $\max$ .

For instance, if the user insert  $b = 2$  and  $\max = 500$ , the program will print the values of:

$$2^0, 2^1, 2^2, \dots, 2^n$$

with  $2^n \leq 500$ , indeed:

$$1, 2, 4, 8, 16, 32, 64, 128, 256$$

(the next value,  $2^9$  is  $512 \geq 500$ ).