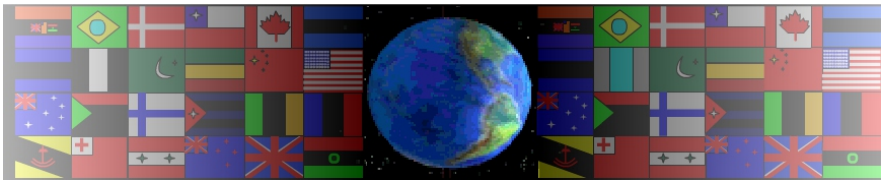
FLOW CHART EXAMINATION QUESTION

On behalf of The World Association of Technology Teachers

W.A.T.T.



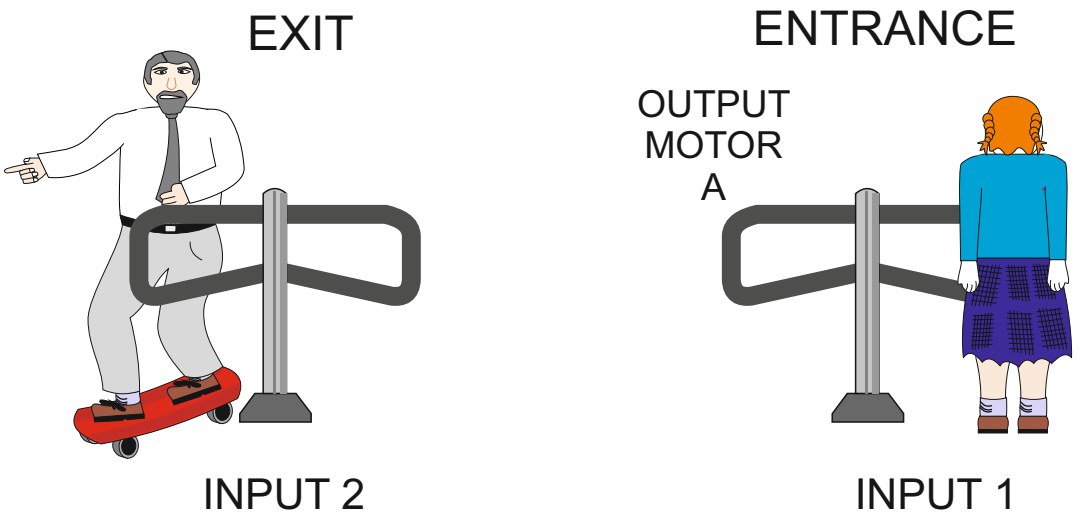
World Association of Technology Teachers

This exercise can be printed and used by teachers and students. It is recommended that you view the website (www.technologystudent.com) before attempting the design sheet .

FLOW CHART EXAMINATION QUESTION

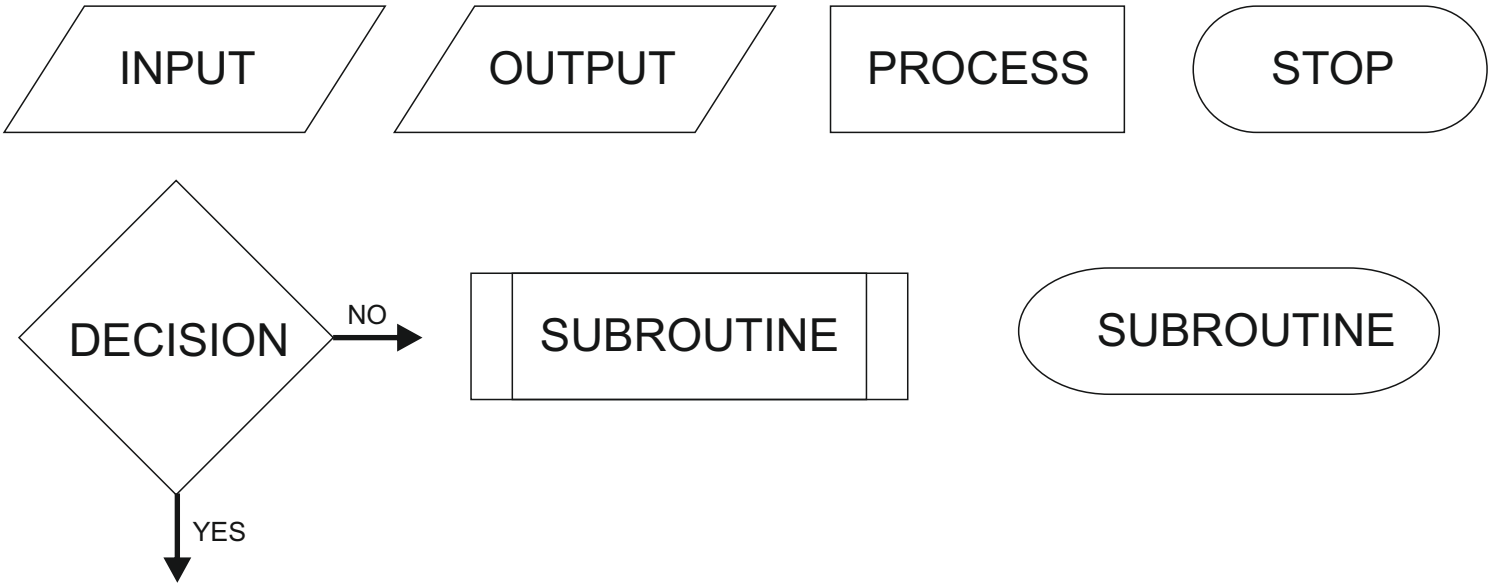
The turnstile system continually calculates the number of people who have entered the theme park and the number of people leaving. This is to ensure that the total never exceeds the legal limit.

A Technology pupil has devised a simple model to test his/her programming. The maximum number of people allowed through the entrance for the test run is ten. The program must calculate those entering the park and balance it with those leaving the park. The total number of those in the park must not exceed ten.



The sequence of events are as follows;
The system is switched on.
The total of people in the park is set at 0.
input 1 and 2 are continually checked.
If input 1 detects a person entering the park then 1 is added to the total.
If input 2 detects a person leaving the park 1 is subtracted from the total.
If the total number of people in the park reaches 10 a solenoid locks the entrance turnstile (this stops more people entering the park)

Write flow chart to represent the programmed sequence of events. Use the following the process / systems boxes shown below.



Describe how your flow chart works by explaining each stage on the right hand siide

Another Technology student has devised a flow chart for the model of the theme entrance and exit. Carefully study each stage of the flow chart and consider possible improvements.

Explain two possible faults/problems with the flow chart.

Explain / describe three possible improvements / additions to the flow chart.

Explain / describe two possible faults / problems with the flow chart.

1. _____

_____

_____

2. _____

_____

_____

Explain / describe three ways in which the flow chart could be improved.

1. _____

_____

_____

2. _____

_____

_____

3. _____

_____

_____