## Plan an algorithm for each question before you start to write your code.

1. Write a program based on the following pseudocode:

```
GET exam mark

IF mark is invalid
    DISPLAY error message

ELSE IF mark > 40
    DISPLAY "You have passed"

ELSE
    DISPLAY "You have failed"
```

- 2. Write a program that will read in the balance of an account and will display one of <a href="two">two</a> possible messages, depending on the value of account Balance.

  Your account is overdrawn by ? euro if the balance is less than 0 or Your account.
  - Your account is overdrawn by ? euro if the balance is less than 0 or Your account is in credit by ? euro if not.
- 3. Using a suitable *control structure*, write a Java program that asks the user to enter a *phvalue*, and will display the appropriate message depending on the ph value entered:

phvalue	
Between 0 and 7	Acidic
Between 7 and 14	Alkaline
Value of exactly 7	Neutral
Above 14 or less than 0	Invalid entry

4. Write a program that will prompt the user to enter their gross income and their marital status (M for Married; S for single), and will tell them which tax band they are in as follows:

Income	Marital Status	Tax Band
Under 20000	S	Α
Under 20000	M	В
Over 20000	S	С
Over 20000	M	D

5. Adapt the program above so that it accepts upper case or lower case input for the marital status and the tax band.