

Revision

Exercise 1 (Input, div)

Write an assembly language program by using simplified segment directive to minus the first character with the second character that entered by the user then display the result in ASCII. (note: we assume that the first character entered by the user is always greater than the second character.)

Sample output:

Enter 1st character: W

Enter 2nd character: B

W - B = 21

Exercise 2 (looping, jump, divide):

Write a program to display all digits from 1 to 9 with the use of Loop but the program should replace all the digit that can be divided evenly with the number entered by user with *.

Sample output 1:

Enter a digit: **3**

12*45*78*

Sample output 2:

Enter a digit: **4**

123*567*9

Exercise 3 (looping, array, jump):

Write a complete assembly language program by using simplified segment directive to process a given list of integer numbers as shown below:

NUM DB 4, 9, 7, 3, 2, 5, 4, 0

- i. The program should display all integer numbers.
- ii. Modify the previous program to display integers that are greater than 2.
- iii. Add up all numbers that are larger than 2 from the list then display the result.

Exercise 4 (loop, array, jump, i/p string):

Write a complete assembly program by using simplified segment directive to validate the input of postcode. The postcode should consist of 5 numerical digits.

Sample output 1:

```
Enter Postcode: 53300
```

```
Valid Postcode
```

Sample output 2:

```
Enter Postcode: 5330T
```

```
Invalid Postcode
```

Exercise 5 (loop, array, jump)

Write an assembly language program that will find the largest value from a list. (PYP-08/13: 15 marks)

The program should:

- Prompt the user to enter 5 digits.
- Accept the user input. (Assume user will only enter 5 digits)
- Find the largest value inside the list.
- Display the largest value on the screen.

```
Please enter 5 digits >> 35827
```

```
The largest value is >> 8
```