

AMA2222 Lab1 (week1)

(1a) (2 marks)

Write a program that reads the principal  $P$  (\$), annual interest rate  $r$  (%), time  $t$  (months), and computes the interest  $I$  (\$) and total amount  $A$  (\$) upon maturity using simple interest. You may refer to the formula below:

$$I = P \times \frac{r}{100} \times \frac{t}{12} \quad A = P + I$$

Refer to the sample input and output below:

```
Enter the principal ($): 10000
Enter the annual interest rate (%): 3
Enter the time of deposit (months): 18
The interest is $450
The total amount is $10450
```

(1b) (2 marks)

An automatic teller machine (ATM) can process money withdraw request from customers. Three kinds of bank notes, \$1000, \$500 and \$100 are available indefinitely. Assuming that the withdrawal amount is a multiple of \$100, write a program that uses the least number of banknotes to output such amount of money. Refer to the sample input and output below:

```
Enter the withdrawal amount($): 3700
Here is your money:
$1000 x 3
$500 x 1
$100 x 2
```