Computer Engineering 11
Advanced Programming

Lab 1

Lab 1

- Login to the Mac
- Start a terminal
- Use vi
- Create the program
- Compile and execute
- Demo to the TA
- Upload the code to Camino

Lab 1 – Division Test

- Do 10 times
  - Generate two numbers between 0 and 12 randomly
    - Denominator (cannot be zero) and quotient
  - Output the dividend (divisor * quotient) and denominator
  - Input the answer
  - Compare the answer with the quotient
  - Output right or wrong
  - If the answer is wrong, output the correct quotient
  - Count the number of correct answers
- Show the total score to the user

Lab 1

To generate the random numbers

- divisor = rand ( ) % 12 + 1;
- quotient = rand ( ) % 13;
- call **srand** once, before the loop

```
srand ((int) time (NULL));
```

Lab 1

- Create a function to handle each division
  - The **main function** generates the numbers and passes them as **arguments** to the division function
  - The division function returns **1** if the user is right and **0** if the user is wrong
  - The main function counts the number of right answers in the loop

Lab 1

- Grading
  - Pre-lab
    - Flowchart or Pseudo-code – 10%
  - In the lab
    - Demo to the TA – 30%
    - Submit your code to Camino – 60%