

ITI1120 Section 2 Exercise Solutions

Exercise 2-1 - Collating Sequence

'A' < 'a' is **true**

while

'?' < ' ' is **false**

Exercise 2-2 - Test for Upper case

- Suppose the variable **x** contains a value of type **char**.
- Write a Boolean expression that is TRUE if the value of **x** is an upper case letter and is FALSE otherwise.
 - Note that you don't need to know the actual code value of the characters!

```
('A' <= X ) && ( X <= 'Z' )
```

Exercise 2-3 - Operator Precedence

- What is the order of evaluation in the following expressions?

$$a + b + c + d + e$$

1 2 3 4

$$a + b * c - d / e$$

3 1 4 2

$$a / (b + c) - d \% e$$

2 1 4 3

$$a / (b * (c + (d - e)))$$

4 3 2 1

Program Memory

Exercise 2-4 - Some math

Working memory

```
// Variable declarations  
double cost1; // first cost  
double cost2; // second cost  
double cost3; // third cost  
double avg; // to store the average
```

```
avg = (cost1+cost2+cost3)/3;
```

```
// Variable declarations  
int intVar1, intVar2; // 2 integer variables  
int quotient;  
int remainder;
```

```
quotient = intVar1/intVar2;  
remainder = intVar1 % intVar2;
```

cost1

cost2

cost3

avg

intVar1

intVar2

quotient

remainder

CPU