

**1) (10 pts) DSN (Recursive Functions)**

Write a recursive function that will return the binary equivalent of its input parameter, `decimalNo`. You may assume that `decimalNo` is in between 0 and 1023, inclusive, thus the converted binary value will fit into an integer variable. For example, `toBinary(46)` should return the integer 101110 and `toBinary(512)` should return 1000000000.

```
int toBinary(int decimalNo) {  
  
    if (decimalNo < 2)  
        return decimalNo;  
  
    return 10*toBinary(decimalNo/2) + decimalNo%2;  
  
}
```

**Grading: 2 pts base case (1 pt for 0 case, 1 pt for 1 case)**

**8 pts rest - 1 pt return**

**2 pts mult 10**

**1 pt toBinary call**

**2 pt decimalNo/2 in recursive call**

**2 pts adding decimalNo%2**