

Question A – Daniyar Nazarbayev, H00204990.

1.

```
- fun realIntMult(x:real, y:int) = x * real(y);  
val realIntMult = fn : real * int -> real  
- realIntMult(3.3,3);  
val it = 9.9 : real
```

2.

```
- fun moreLetters(x:string, y:string) = if size(x)>size(y) then true else false;  
val moreLetters = fn : string * string -> bool  
- moreLetters("big", "small");  
val it = false : bool
```

3.

```
- fun isDigit(x:char) = if ord(x)>=48 andalso ord(x)<=57 then true else false;  
val isDigit = fn : char -> bool  
- isDigit("#7");  
val it = true : bool
```

4.

```
- fun digitValue(x:char) = if ord(x)>=48 andalso ord(x)<=57 then (ord(x)-48) else ~1;  
val digitValue = fn : char -> int  
- digitValue("#a");  
val it = ~1 : int  
- digitValue("#7");  
val it = 7 : int
```

5.

```
- fun conv (x:real) = (x, floor(x));  
val conv = fn : real -> real * int  
- conv (99.99);  
val it = (99.99,99) : real * int
```

6.

```
- fun NAND false false = false | NAND _ _ = true;  
val NAND = fn : bool -> bool -> bool  
- NAND true true;  
val it = true : bool  
- NAND true false;  
val it = true : bool  
- NAND false false;  
val it = false : bool  
- NAND false true;  
val it = true : bool
```