



Section-Wide Items

Video Lectures

Homework 1

**Programming Assignment:**

Homework 1 (Auto-Grader)

3h

**Reading:** Homework 1

Detailed Guidelines for Peer Assessment

**Peer-graded Assignment:**

Homework 1

45 min

**Review Your Peers:**

Homework 1

Community-Contributed Resources



Problem 1

Here is a sample solution:

```

1 fun is_older (date1 : int * int * int, date2 : int * int * i
2     let
3         val y1 = #1 date1
4         val m1 = #2 date1
5         val d1 = #3 date1
6         val y2 = #1 date2
7         val m2 = #2 date2
8         val d2 = #3 date2
9     in
10        y1 < y2 orelse (y1=y2 andalso m1 < m2)
11        orelse (y1=y2 andalso m1=m2 andalso d1 < d2)
12    end

```

- Be lenient on how let-expressions are used. It is okay if there are no local val bindings. It is also okay if there are more (e.g., to avoid repeating the expression **y1=y2**).
- For the logic expression, it is okay to use **if ... then ... else ...** instead of **orelse** and **andalso**, but the logic should still be clear: starting by comparing the year, then the month, then the day. If the logic is hard to follow, give a 4 or 3.

Give a 3 for this sort of more imperative looking code:

```

1 fun is_older (date1 : int * int * int, date2 : int * int * i
2     let val y1 = #1 date1
3         val m1 = #2 date1
4         val d1 = #3 date1
5         val y2 = #1 date2
6         val m2 = #2 date2
7         val d2 = #3 date2
8     in
9         let val b1 = y1 < y2
10        in
11            if b1
12            then true
13            else let val b2 = y1 > y2
14                 in
15                     if b2
16                     then false
17                     else ...
18                ...
19        end
20    end

```