Exercise 11

*-- define*

data Month = January | February

| March | April

| May | June

| July | August

| September | October

| November | December

deriving (Show)

*-- implement*

daysInMonth :: Month -> Integer

daysInMonth m = case m of

January -> 31

February -> 28

March -> 31

April -> 30

May -> 31

June -> 30

July -> 31

August -> 31

September -> 30

October -> 31

November -> 30

December -> 31

nextMonth :: Month -> Month

nextMonth m = case m of

January -> February

February -> March

March -> April

April -> May

May -> June

June -> July

July -> August

August -> September

September -> October

October -> November

November -> December

December -> January

nextDay :: Integer -> Month ->

(Integer, Month)

nextDay d m =

if d == daysInMonth m

then (1, nextMonth m)

else (d+1, m)