Table of Contents

..... 1
Question 1. 1
Question 2 2
Question 3 4


```
awfuldata = readtable('Neonatal_Mortality.xlsx', 'ReadVariableNames', ...
    true, 'Range', 'A1:CA195');

% awfuldata.x1990 = str2double(awfuldata.x1990);
% awfuldata.x1991 = str2double(awfuldata.x1991);
% awfuldata.x1992 = str2double(awfuldata.x1992);
% awfuldata.x1993 = str2double(awfuldata.x1993);
% awfuldata.x1994 = str2double(awfuldata.x1994);
% awfuldata.x1995 = str2double(awfuldata.x1995);
% awfuldata.x1996 = str2double(awfuldata.x1996);
% awfuldata.x1997 = str2double(awfuldata.x1997);
% awfuldata.x1998 = str2double(awfuldata.x1998);
% awfuldata.x1999 = str2double(awfuldata.x1999);
% awfuldata.x2000 = str2double(awfuldata.x2000);
% awfuldata.x2001 = str2double(awfuldata.x2001);
% awfuldata.x2002 = str2double(awfuldata.x2002);
% awfuldata.x2003 = str2double(awfuldata.x2003);
% awfuldata.x2004 = str2double(awfuldata.x2004);
% awfuldata.x2005 = str2double(awfuldata.x2005);
% awfuldata.x2006 = str2double(awfuldata.x2006);
% awfuldata.x2007 = str2double(awfuldata.x2007);
% awfuldata.x2008 = str2double(awfuldata.x2008);
% awfuldata.x2009 = str2double(awfuldata.x2009);
% awfuldata.x2010 = str2double(awfuldata.x2010);
% awfuldata.x2011 = str2double(awfuldata.x2011);
% awfuldata.x2012 = str2double(awfuldata.x2012);
% awfuldata.x2013 = str2double(awfuldata.x2013);
% awfuldata.x2014 = str2double(awfuldata.x2014);
% awfuldata.x2015 = str2double(awfuldata.x2015);


awful2015 = str2double(awfuldata.x2015);
awful1990 = str2double(awfuldata.x1990);
```

```
Warning: Variable names were modified to make them valid MATLAB identifier
```

Question 1.

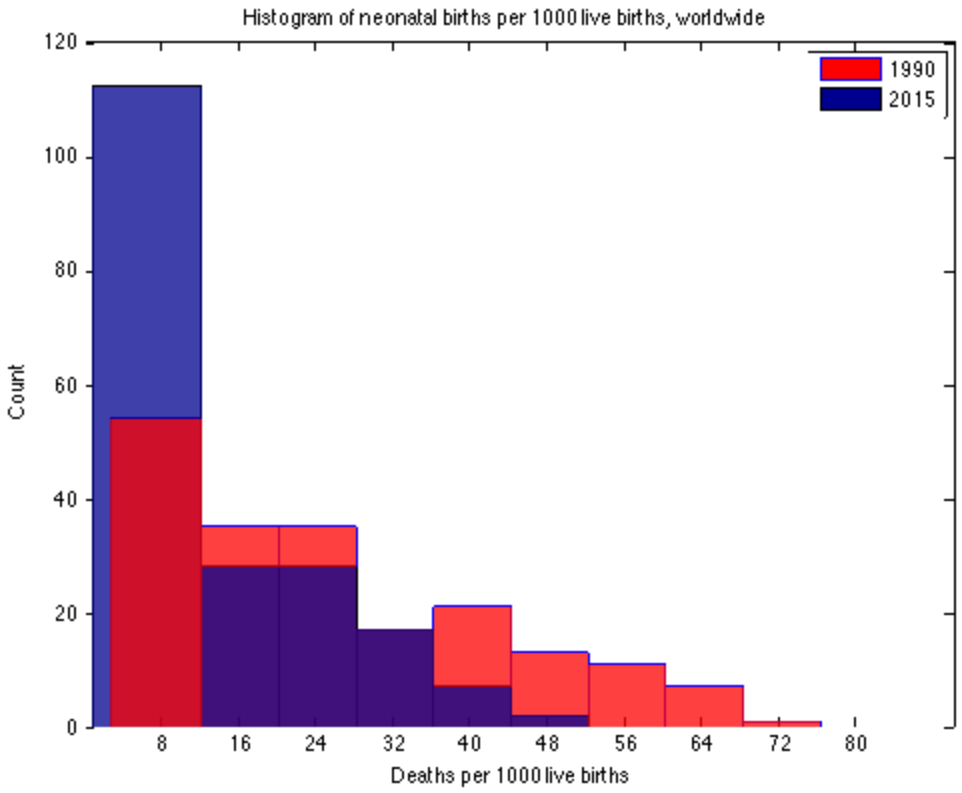
```
numCountries = length(unique(awfuldata.Country))
units = unique(awfuldata.Units)

% There are 194 different countries in this database.
```

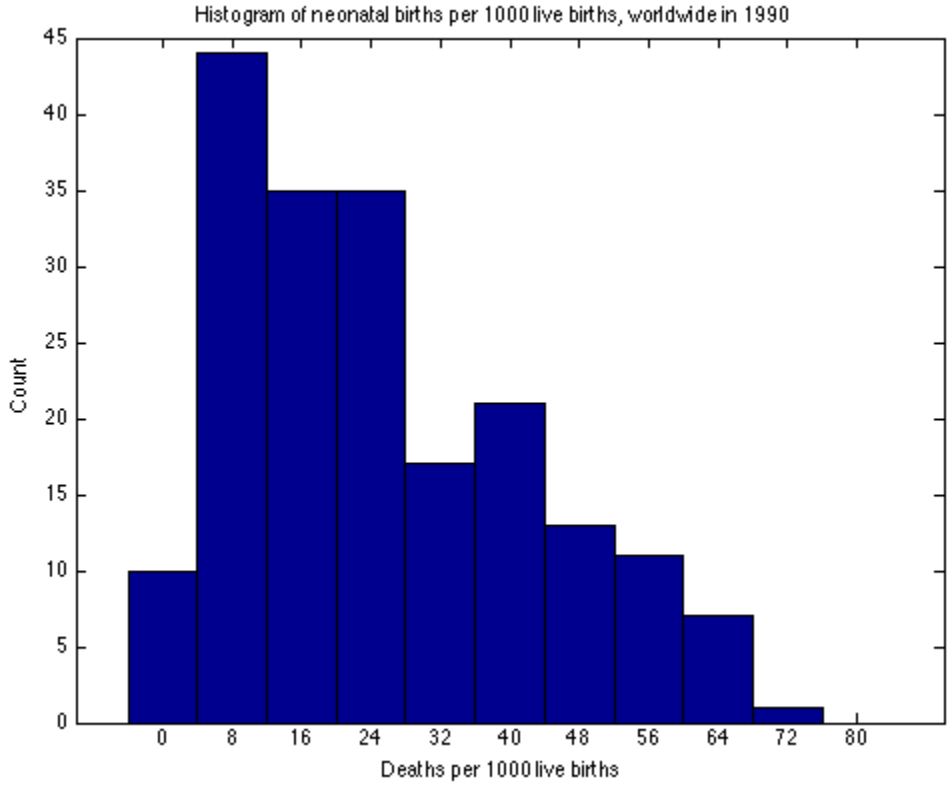
```
% The units for Neonatal mortality are deaths/1000 live births
```

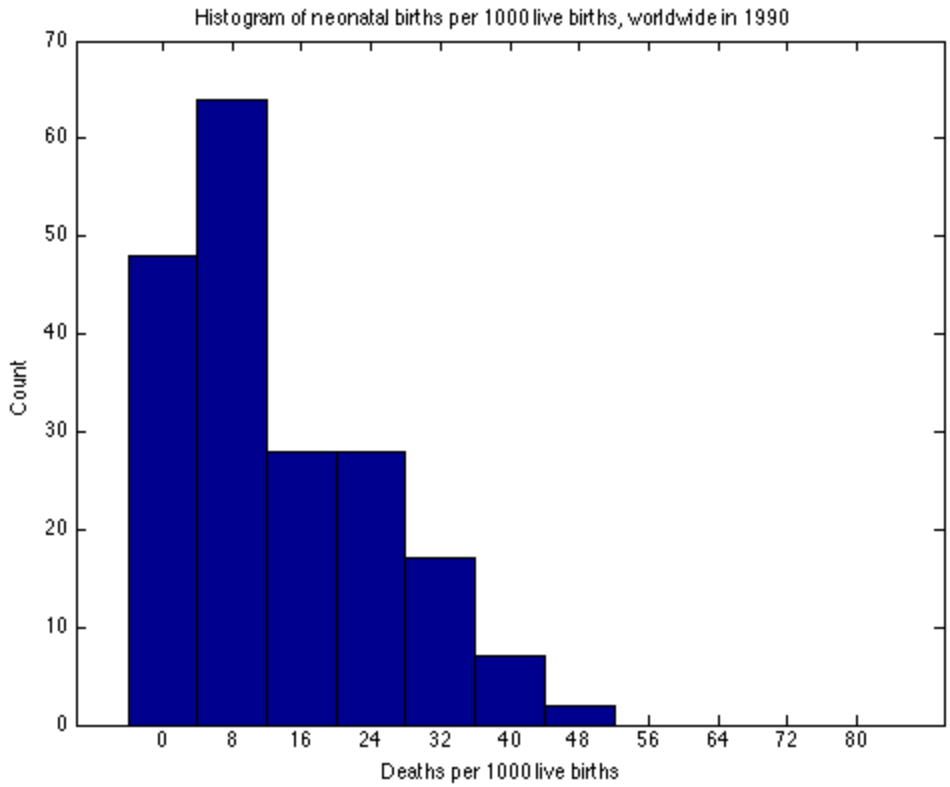
```
numCountries =

   194


units =

    'per 1,000 live births'
```

Question 2

```
figure;

hist(awful1990, 8:8:80)
g = findobj(gca, 'Type', 'patch');
set(g, 'FaceColor', 'r', 'EdgeColor', 'b', 'FaceAlpha', 0.75);

hold on;

hist(awful2015,8:8:80)
h = findobj(findobj(gca, 'Type', 'patch'));
set(h, 'FaceAlpha', 0.75);
hold off;
xlabel('Deaths per 1000 live births')
ylabel('Count')
legend('1990', '2015');
title('Histogram of neonatal births per 1000 live births, worldwide')

% I talked to Dr. Brunton and she gave me permission to also turn in the
% two histograms on separate plots, since I have Matlab R2014a, which does
% not have the histogram() command (Came out in R2014b). The above roughly
% approximates the shading histogram() would provide, but the first bin is
% a little wonky?
%
figure;
hist(awful1990, 0:8:80)
xlabel('Deaths per 1000 live births')
ylabel('Count')
title('Histogram of neonatal births per 1000 live births, worldwide in 1990')

figure;
hist(awful2015, 0:8:80)
xlabel('Deaths per 1000 live births')
ylabel('Count')
title('Histogram of neonatal births per 1000 live births, worldwide in 1990')
```


Histogram of neonatal births per 1000 live births, worldwide
1990
2015
Count
Deaths per 1000 live births
0
20
40
60
80
100
120
8
16
24
32
40
48
56
64
72
80


Histogram of neonatal births per 1000 live births, worldwide in 1990
Count
Deaths per 1000 live births
0
5
10
15
20
25
30
35
40
45
0
8
16
24
32
40
48
56
64
72
80



Question 3

```
malawimort = awfuldata{find(ismember('Malawi', awfuldata.CountryName)),54:79}
```

```
malawimort =

  Columns 1 through 8

    '5.5'    '6.9'    '7.5'    '8.2'    '9.1'    '10.1'    '14'    '21.2'

  Columns 9 through 16

    '29.7'    '5.9'    '6.3'    '11.3'    '12.6'    '15.5'    '17.1'    '1

  Columns 17 through 24

    '20.1'    '22.2'    '23.3'    '24.4'    '28'    '28.8'    '26.9'    '2

  Columns 25 through 26

    '29.4'    '29.7'
```

Published with MATLAB® R2014a