A normal distribution has a skewness of zero. The transformed data set is the better fit to a normal distribution.

iv)

```
i(energy2,95)
      95%:        8.693   ( 8.805 )  8.917
3.693)
         5961
exp(8.917)
         7458
```

Better to use exp(A4X[7]) to avoid rounding errors

4/4

The confidence interval for the transformed data after retransformation is skewed downwards compared to the untransformed data. This is just what to expect, since the probability plot for the untransformed data was suggestive of an upwards curve. The retransformed transformed data set probably returns the more reliable confidence interval.

v) The mean for the transformed data after retransformation is 6667 kJ. For the untransformed data, the mean is 6754 kJ. The recommended daily intake is substantially outside both confidence intervals, actually the recommended daily intake is well above both upper confidence intervals. At the 95% level of confidence, we can deduce that the mean energy intake is below the recommended daily intake.

2/2

b) i)

```
load(injuries)
  » injuries[414]   (M246 p.000)
mean(injuries)
         0.4831
vare(injuries)
         1.011
```

3/3