R Day 12:

1) In a certain type of metal test specimen, the normal stress on a specimen is known to be functionally related to the shear resistance. The following is a set of coded experimental data on the two variables:

Normal Stress	Shear Resistance
26.8	26.5
25.4	27.3
28.9	24.2
23.6	27.1
27.7	23.6
33.9	25.9
24.7	26.3
28.1	22.5
26.9	21.7
27.4	21.4
26.6	28.8
25.6	24.9

- a) Estimate the shear resistance for a normal stress of 27.5.
- b) Plot the data; does it appear that a simple linear regression will be a suitable model?