4 Electric Power

4.1.1 What is the definition of power factor? What is the best power factor for a machine shop? What are the symptoms of a shop having a terrible power factor?

4.1.2 Sketch a one-cycle picture of the following voltages found on a machine tool.

a.) AC100
b.) "R" Phase
c.) "S" Phase
d.) "T" Phase
e.) What is the instantaneous voltage sum of R, S and T?

4.5.1 Sketch a picture of three switch contacts in:
a.) Series
b.) Parallel
c.) Which circuit can monitor three alarm contacts on one signal line?

4.5.2 Sketch a picture of three 1Ω resistors in:
a.) Series, then find the equivalent resistance
b.) Parallel, then find the equivalent resistance.