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* KHOONG WEI HAO ST2137 Tutorial 6 T03;

* Q2 (a);
* We will use the Wilcoxon rank sum test to determine if there is a difference between the processing
times of the two plants.;

proc format;
  value $plant "1" = "Plant 1" "2" = "Plant 2";
run;

data t6q2;
  infile "~/data/wip.txt" firstobs=2;
  input time plant $;
  label time = "WIP Time";
  format plant $plant.;
run;

proc npar1way data=t6q2 wilcoxon;
  title "Tutorial 6 Question 2 Wilcoxon rank sum test";
  class plant;
  var time;
  exact wilcoxon;
run;

* Ans: We are testing  $H_0: \mu_1 - \mu_2 = 0$  against  $H_1: \mu_1 - \mu_2 \neq 0$ . From the Wilcoxon rank sum test, the
p-value = 0.0822. Thus we do not reject  $H_0$ ;
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