

The manager of a technology company A claims that his employees earn more per year than the employees at technology company B . The amounts earned per year, in hundreds of dollars, by a random sample of 12 employees from company A and an independent random sample of 12 employees from company B are shown below.

Company A	461	482	374	512	415	452	502	427	398	545	612	359
Company B	454	506	491	384	361	443	401	472	414	342	355	437

- (a) Carry out a Wilcoxon rank-sum test at the 5% significance level to test whether the manager's claim is supported by the data. [9]
- (b) Explain whether a paired sample t -test would be appropriate to test the manager's claim if earnings are normally distributed. [1]