

A large number of runners are attending a summer training camp. A random sample of 6 runners is chosen and their times to run 1500 m at the beginning of the camp and at the end of the camp are recorded. Their times, in minutes, are shown in the following table.

Runner	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>
Time at beginning of camp	3.82	3.62	3.55	3.71	3.75	3.92
Time at end of camp	3.72	3.55	3.52	3.68	3.54	3.73

The organiser of the training camp claims that a runner's time will improve by more than 0.05 minutes between the beginning and end of the camp. Assuming that differences in time over the two runs are normally distributed, test at the 10% significance level whether the organiser's claim is justified. [8]