5 An engineer is comparing the tensile strengths of steel rods made from two machines, *A* and *B*. The engineer randomly selects 8 rods from machine *A* and 6 rods from machine *B*. The tensile strengths, in appropriate units, are given in the following table.

Machine *A*	402	403	415	412	409	407	406	410
Machine *B*	401	398	395	397	410	405		

You should assume that the two distributions are normal and have the same population variance.

Use a *t*-test at the 5% significance level to test whether there is any difference in the mean tensile strengths of steel rods from the two machines. [9]