## Chapter 25 Class example

One indicator of physical fitness is resting pulse rate. Ten men volunteered to test an exercise device advertised on television by using it three times a week for 20 minutes. Their resting pulse rates (beats per minute) were measured before the test began, and then again after six weeks.
Results are shown in the table. Is there evidence that this kind of exercise can reduce resting pulse rates? How much?

|  | Pulse rates (beats/min) |  |
| :--- | :---: | :---: |
| Subject | Before | After |
| Allen | 73 | 73 |
| Brandon | 83 | 79 |
| Carlos | 85 | 81 |
| David | 87 | 86 |
| Edwin | 91 | 87 |
| Franco | 99 | 91 |
| Graeme | 87 | 84 |
| Hans | 85 | 83 |
| Ivan | 83 | 84 |
| Jorge | 79 | 76 |

1. Name the test, check conditions, find $\mathrm{t}, \mathrm{df}, \mathrm{p}$-value and state your conclusion.
2. Now, construct and interpret a $95 \%$ confidence interval.
