Qn 3

A question of medical importance is whether jogging leads to a reduction in one’s pulse rate. To test this hypothesis, 8 non-jogging volunteers agreed to begin a 1 month jogging program. After the month their pulse rates were determined and compared with their earlier values. If the data are as follows, can we conclude that jogging can reduce the pulse rates at level of significance 0.05?

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| Subject | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Pulse Rate before | 74 | 86 | 98 | 102 | 78 | 84 | 79 | 70 |
| Pulse Rate After | 70 | 85 | 90 | 110 | 71 | 80 | 69 | 74 |

Assume that both the “pulse rate before” and “pulse rate after” are normally distributed and the two distributions are independent of each other.

One sided paired t-test is used.

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