**BIS 420 PROGRAMMING FOR DATA SCIENCE**

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CHAPTER 1 EXERCISE 1.4

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Start the Python interpreter and use it as a calculator. Python’s syntax for math operations is almost the same as standard mathematical notation. For example, the symbols +, - and / denote addition, subtraction and division, as you would expect. The symbol for multiplication is \*. If you run a 10 kilometer race in 43 minutes 30 seconds, what is your average time per mile? What is your average speed in miles per hour? (Hint: there are 1.61 kilometers in a mile).

**ANS:**

A screenshot of a computer

Description automatically generated

rd\_km = 10

tm\_min = 43

tm\_sec = 30

km\_mi = 1 / 1.61

rd\_mi = rd\_km \* km\_mi

tt\_sec = (tm\_min \* 60) + tm\_sec

at\_pm\_sec = tt\_sec / rd\_mi

at\_pm\_min = at\_pm\_sec // 60

at\_pm\_rem\_sec = at\_pm\_sec % 60

as\_mph = rd\_mi / (tt\_sec / 3600)

at\_pm = f"{int(at\_pm\_min)}:{int(at\_pm\_rem\_sec):02d} (min:sec)"

as\_mph = round(as\_mph, 2)

print("Average time per mile:", at\_pm)

Average time per mile: 7:00 (min:sec)

print("Average speed in mph:", as\_mph)

Average speed in mph: 8.57