Amdahl’s Law Exercises

1. A program takes 10 seconds to run on 1 core. If the non parallelisable part of the program takes up 60% of the program (6 seconds), the parallelisable part takes up 40% of the program (4 seconds) how long will the program take to run on 4 cores?
2. A program serially takes 15 seconds to run. If the non parallelisable part of the program takes up 50% of the program, how long will the program take to run on 5 cores?
3. A program serially takes 1 second to run. If the parallelisable part of the program takes up 35% of the program, how long will the program take to run on 3 cores?
4. If you run a program on one core and it takes 2 seconds to run, how quickly will it run on 3 cores if the parallelisable section of the program takes up 40% of the program?
5. If you run a program on one core and it takes 0.5 seconds to run, how quickly will it run on 5 cores if the parallelisable section of the program takes up 50% of the program?