

- 1) (5 pts) Write a subroutine that will add two vectors. Write a main program to test your subroutine. Use the vectors in the data file `hw27_1.in`
- 2) (10 pts) Write a subroutine that will compute either the 1-norm, the 2-norm or the  $\infty$ -norm of a vector depending on the value of a `flag` variable. Your subroutine sequence should look something like

```
SUBROUTINE getnorms(n,x,flag,outnorm)
```

If `flag` is 1, you should return the 1-norm, if `flag` is 2 you should return the 2-norm and if `flag` is 3, you should return the  $\infty$ -norm.

Write a main program to test your subroutine using the data file `hw24_2.in`