

Problem 1: Takes a while to run, but it is successful.

```
Terminal File Edit View Search Terminal Help
kavin@gHost-laptop:~/Silo/CollegeWork/ML/HW/7$ nosetests -v test1.py
----- Problem 1 (30 points in total)----- ... ok
(10 points) E_Step ... ok
(10 points) M_Step ... ok
(10 points) EM ... ok

-----
Ran 4 tests in 29.490s

OK
kavin@gHost-laptop:~/Silo/CollegeWork/ML/HW/7$
```

Problem 2:

```
Terminal File Edit View Search Terminal Help
kavin@gHost-laptop:~/Silo/CollegeWork/ML/HW/7$ nosetests -v test1.py
----- Problem 1 (30 points in total)----- ... ok
(10 points) E_Step ... ok
(10 points) M_Step ... ok
(10 points) EM ... ok

-----
Ran 4 tests in 29.490s

OK
kavin@gHost-laptop:~/Silo/CollegeWork/ML/HW/7$ nosetests -v test2.py
----- Problem 2 (30 points in total)----- ... ok
(5 points) centering_X ... ok
(5 points) compute_C ... ok
(5 points) compute_eigen_pairs ... ok
(5 points) compute_P ... ok
(5 points) compute_Xp ... ok
(5 points) PCA ... ok

-----
Ran 7 tests in 0.042s

OK
kavin@gHost-laptop:~/Silo/CollegeWork/ML/HW/7$
```

Problem 3:

```
Terminal File Edit View Search Terminal Help
----- Problem 2 (30 points in total)----- ... ok
(5 points) centering_X ... ok
(5 points) compute_C ... ok
(5 points) compute_eigen_pairs ... ok
(5 points) compute_P ... ok
(5 points) compute_Xp ... ok
(5 points) PCA ... ok
-----
Ran 7 tests in 0.042s

OK
kavin@gHost-laptop:~/Silo/CollegeWork/ML/HW/7$ nosetests -v test3.py
----- Problem 3 (40 points in total)----- ... ok
(10 points) variational_inference ... ok
(10 points) E_step ... ok
(10 points) update_beta ... ok
(10 points) EM ... ok
-----
Ran 5 tests in 0.165s

OK
kavin@gHost-laptop:~/Silo/CollegeWork/ML/HW/7$
```