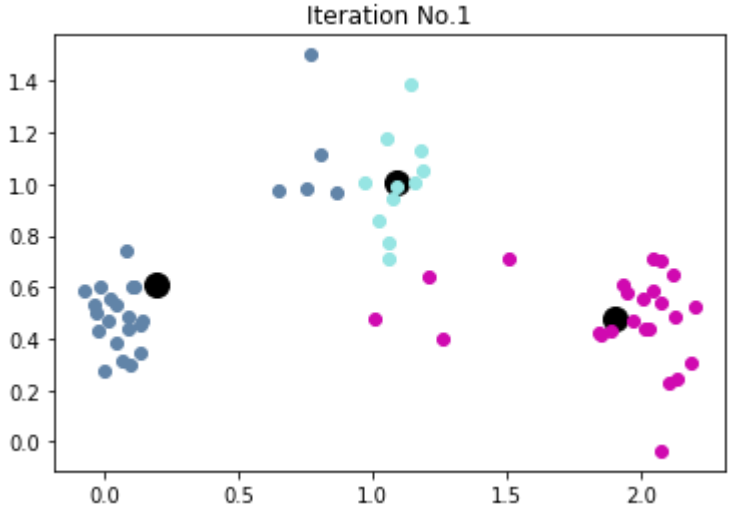
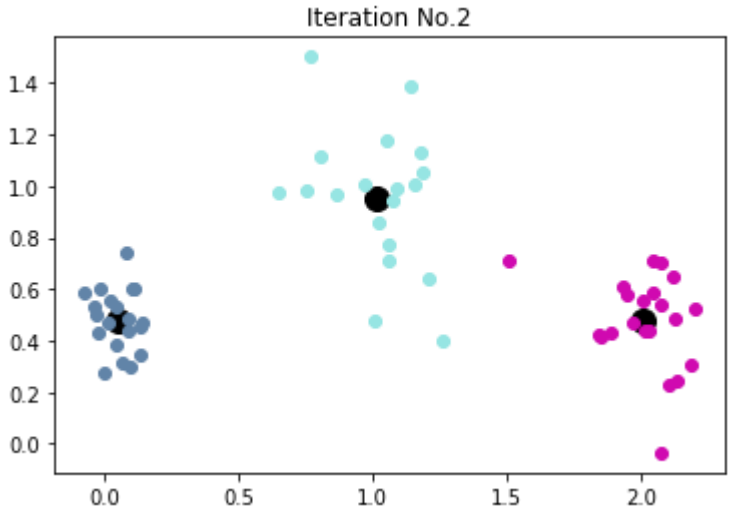
In [ ]:
```
# %load '/src/faces.py'
/src/faces.py
```

In [ ]:
```
# %load '/src/faces.py'
/src/faces.py
```

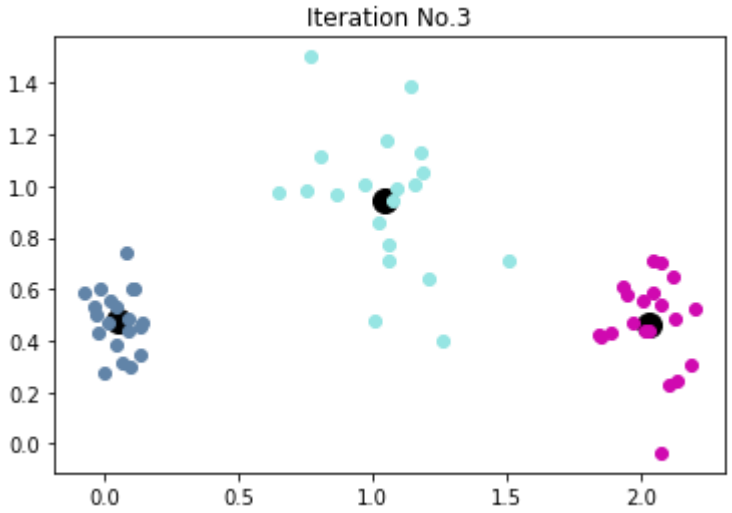
In [16]:
```
%run ./src/faces.py
# part (d)
```



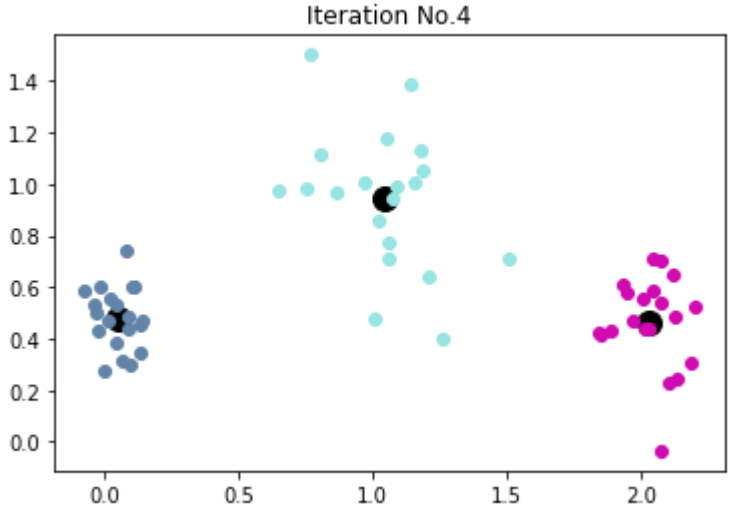

```
center for iteration1: [array([ 1.089668  ,  1.00424282]), array([ 1.90010446,  0.48090448]), array([ 0.1929823
8,  0.60641572])]
```




```
center for iteration2: [array([ 1.01605529,  0.95288767]), array([ 2.00594139,  0.47723895]), array([ 0.0491797
4,  0.4810944 ])]
```

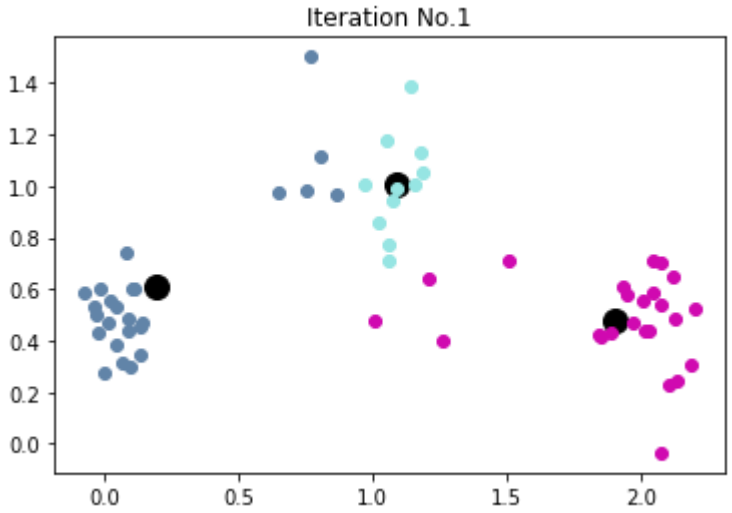



```
center for iteration3: [array([ 1.04063507,  0.9409604 ]), array([ 2.03085592,  0.46538378]), array([ 0.0491797
4,  0.4810944 ])]
```

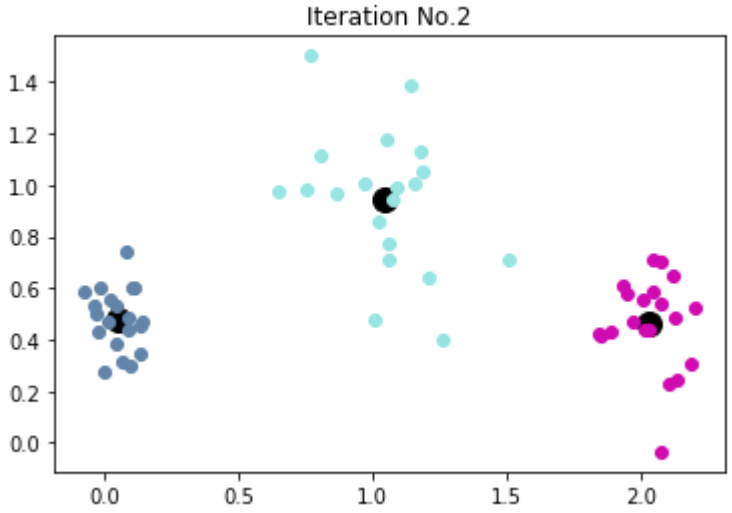



```
center for iteration4: [array([ 1.04063507,  0.9409604 ]), array([ 2.03085592,  0.46538378]), array([ 0.0491797
4,  0.4810944 ])]
```

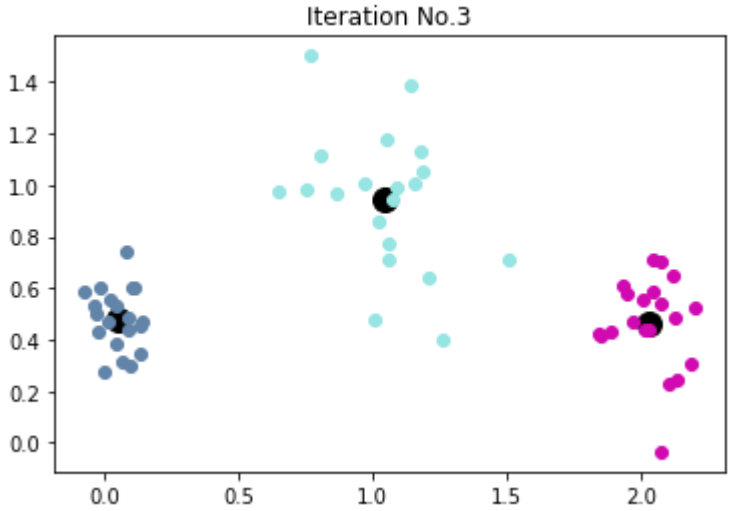
In [17]:
```
%run ./src/faces.py
# part e
```




```
center for iteration1: [array([ 1.08850508,  0.99112174]), array([ 1.96941007,  0.47267369]), array([ 0.0863717
3,  0.48779084])]
```

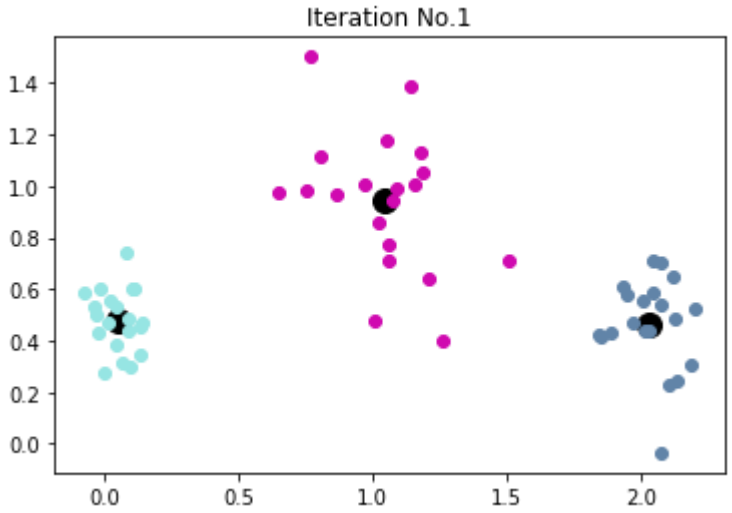



```
center for iteration2: [array([ 1.07699221,  0.94787531]), array([ 2.01197635,  0.44000531]), array([ 0.0124713
,  0.46772052])]
```

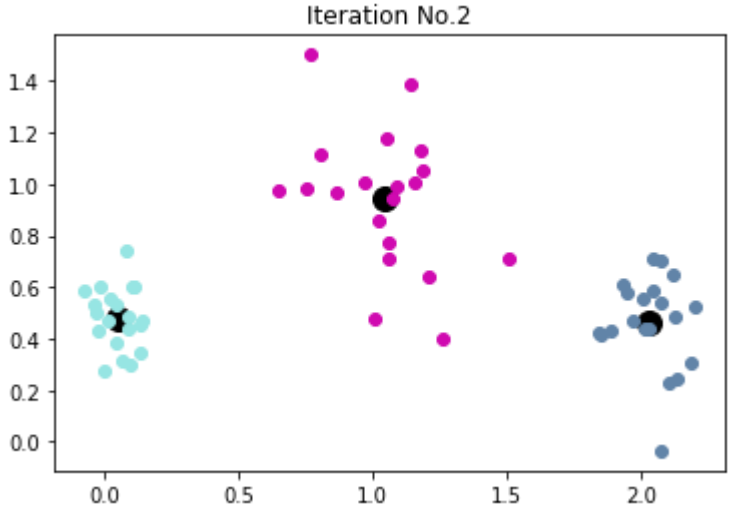



```
center for iteration3: [array([ 1.07699221,  0.94787531]), array([ 2.01197635,  0.44000531]), array([ 0.0124713
,  0.46772052])]
```

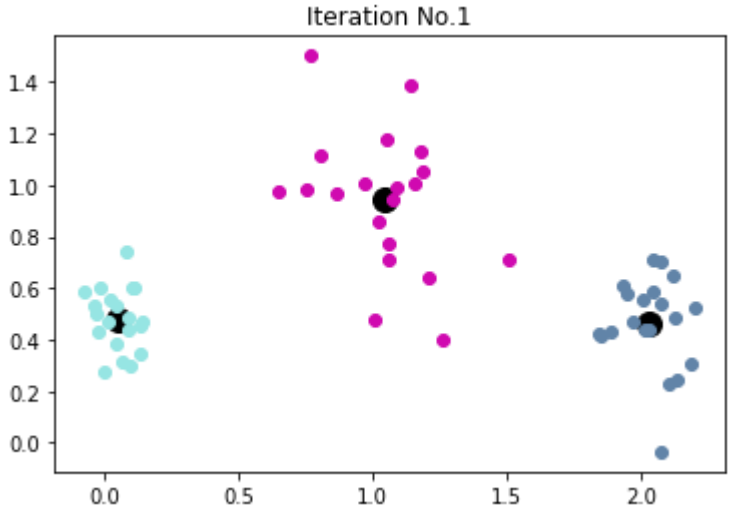
In [18]:
```
%run ./src/faces.py
# part f
# first 2 graphs for kMeans
# later 2 graphs for kMedoids
```



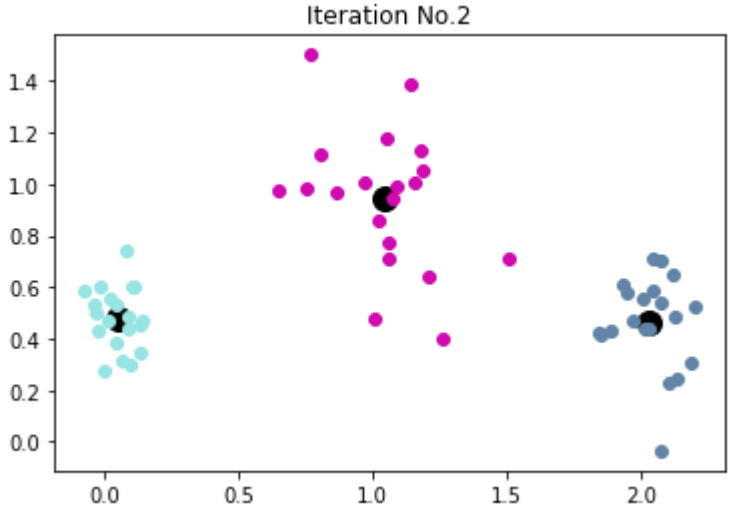

```
center for iteration1: [array([ 0.04917974,  0.4810944 ]), array([ 1.04063507,  0.9409604 ]), array([ 2.0308559
2,  0.46538378])]
```




```
center for iteration2: [array([ 0.04917974,  0.4810944 ]), array([ 1.04063507,  0.9409604 ]), array([ 2.0308559
2,  0.46538378])]
```




```
center for iteration1: [array([ 0.0124713 ,  0.46772052]), array([ 1.07699221,  0.94787531]), array([ 2.0119763
5,  0.44000531])]
```




```
center for iteration2: [array([ 0.0124713 ,  0.46772052]), array([ 1.07699221,  0.94787531]), array([ 2.0119763
5,  0.44000531])]
```

In [ ]: