$$S_1(3) = \{x_1,\ x_4,\ x_8\}$$

$$S_2(3) = \{x_3, x_5, x_6\}$$

$$S_3(3) = \{x_2, x_7\}$$

计算新的聚类中心：

$$Z_1(3) = (11/3,\ 9)$$

$$Z_2(3) = (7,\ 13/3)$$

$$Z_3(3) = (\frac{3}{2},\ \frac{7}{2})$$

4）选择新的聚类中心，可以计算出：

$$S_1(4) = \{x_1,\ x_4,\ x_8\}$$

$$S_2(4) = \{x_3, x_5, x_6\}$$

$$S_3(4) = \{x_2, x_7\}$$

计算新的聚类中心：

$$Z_1(4) = (11/3,\ 9)$$

$$Z_2(4) = (7,\ 13/3)$$

$$Z_3(4) = (\frac{3}{2},\ \frac{7}{2})$$

聚类中心与第三步相同，所以迭代结束，聚类结果为

$$S_1 = \{x_1,\ x_4,\ x_8\}$$

$$S_2 = \{x_3, x_5, x_6\}$$

$$S_3 = \{x_2, x_7\}$$