# Quiz 3
# SDSC 5002

```
X = [[1, 2, np.nan], [3, 4, 3], [8, 7, 5], [8, 9, 7]]
df = pd.DataFrame(X, columns=['A', 'B', 'C'])
df
```

```
##    A  B    C
## 0  1  2  NaN
## 1  3  4  3.0
## 2  8  7  5.0
## 3  8  9  7.0
```

There is one missing value in the C column. To use KNNImputer with k = 2, we need to calculate the distance between the 0th row and other rows. Denote the squares of these distances by $d^2(0,1)$, $d^2(0,2)$ and $d^2(0,3)$. Please find $d^2$ (0, 1), $d^2$ (0, 2) and $d^2$ (0, 3). Show the steps as well as the final imputation value. (Don't use python)