

# Principal Component Analysis

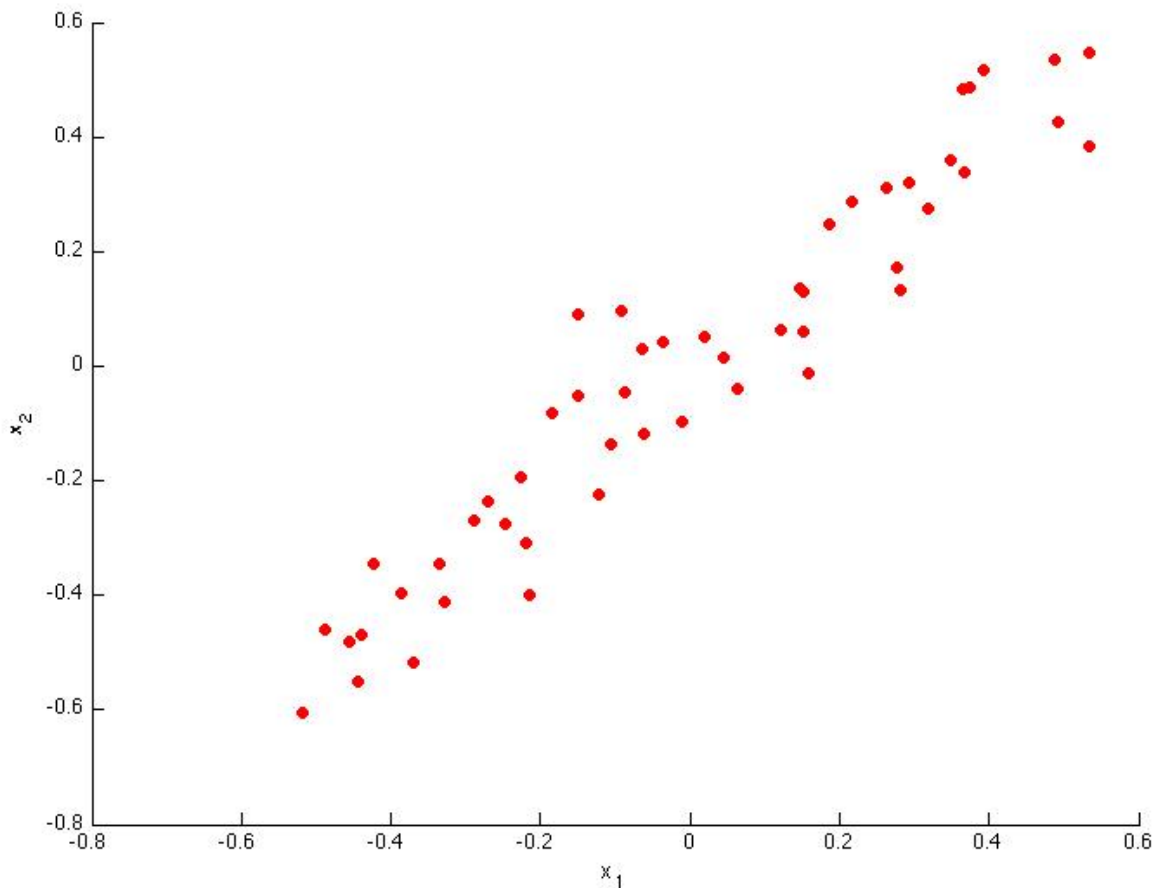
**5/5 points (100.00%)**

Quiz, 5 questions

**✓ Congratulations! You passed!**[Next Item](#)1 / 1  
points

1.

Consider the following 2D dataset:



Which of the following figures correspond to possible values that PCA may return for  $u^{(1)}$  (the first eigenvector / first principal component)? Check all that apply (you may have to check more than one figure).

# Principal Component Analysis

**5/5 points (100.00%)**

Quiz, 5 questions

Which of the following is a reasonable way to select the number of principal components  $k$ ?

(Recall that  $n$  is the dimensionality of the input data and  $m$  is the number of input examples.)

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1 / 1  
points

3.

Suppose someone tells you that they ran PCA in such a way that "95% of the variance was retained." What is an equivalent statement to this?

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1 / 1  
points

4.

Which of the following statements are true? Check all that apply.

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1 / 1  
points

5.

Which of the following are recommended applications of PCA? Select all that apply.

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