AQ7.5: Activity Question 2 - Not Graded

**This assignment will not be graded and is only for practice.**

**Note : This activity is for your practice purpose only. Your score in this will not count towards the Final score.  
  
A table with numbers and letters

AI-generated content may be incorrect.**

***1 point***

If X**X** and Y**Y** are two customers and X**X**a, X**X**b, X**X**c and Y**Y**a, Y**Y**b, Y**Y**c are the number of items corresponding to the categories a, b, c respectively. How will you calculate the Manhattan distance between the two customers?

(X**X**a −− Y**Y**a) ++ (X**X**b −− Y**Y**b) ++ (X**X**c −− Y**Y**c)

∣X∣**X**a −− Y**Y**a ∣**∣** ++ ∣X∣**X**b −− Y**Y**b ∣**∣** ++ ∣X**∣***X*c −− Y**Y**c ∣**∣**

∣Y∣**Y**a −− X**X**a ∣**∣** ++ ∣Y∣**Y**b −− X**X**b ∣**∣** ++ ∣Y**∣***Y*c −− X**X**c ∣**∣**

(X**X**a −− X**X**b −− X**X**c) ++ (Y**Y**a −− Y**Y**b −− Y**Y**c)

To find the nearest customers among X**X**, Y**Y**, Z**Z** from the table shown, what are the minimum pairwise comparisons required?

***1 point***

***1 point***

Who are the nearest customers among X**X**, Y**Y**, Z**Z**?

X**X**, Y**Y**

Y**Y**, Z**Z**

X**X**, Z**Z**

What is the Manhattan distance between the nearest customers?

***1 point***

***1 point***

Who are the farthest customers among X**X**, Y**Y**, Z**Z**?

X**X**, Y**Y**

Y**Y**, Z**Z**

X**X**, Z**Z**

What is the Manhattan distance between the farthest customers?