LMP1210
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Assignment 3

Questions 1, 4, 5:
https://colab.research.google.com/drive/1qZ9FN860wBiQ6yoZeEZZGkoCy_xXl5Y_#scrollTo=GIfbsAyjwaM-

Question 3: https://colab.research.google.com/drive/1jQ1VAprxBkahs-V56m-s6RKkGD2RmY8C

Question 2, 6: In PDFs Attached

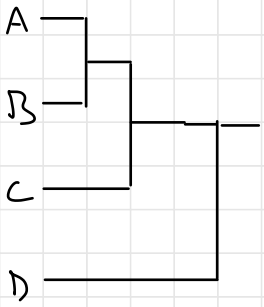
Single link

2(a) $d_{(A,B),C} = \min\{d_{A,C}, d_{B,C}\} = \min\{5, 3\} = 3$

$d_{(A,B),D} = \min\{d_{A,D}, d_{B,D}\} = \min\{6, 8\} = 6$

$d_{((A,B),C),D} = \min\{d_{((A,B),C)}, d_{(A,B),D}\} = \min\{6, 4\} = 4$

	A	B	C	D
A	0			
B	1	0		
C	5	3	0	
D	6	8	4	0



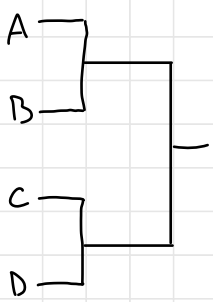
Complete link

b) $d_{(A,B),C} = \max\{d_{A,C}, d_{B,C}\} = \max\{5, 3\} = 5$

$d_{(A,B),D} = \max\{d_{A,D}, d_{B,D}\} = \max\{6, 8\} = 8$

$d_{C,D} = \max\{d_{C,D}, d_{C,D}\} = \max\{5, 8\} = 8$

	A	B	C	D
A	0			
B	1	0		
C	5	3	0	
D	6	8	4	0



6a) $\hat{W} = ((64 - 6 + 2(1))/2) + 1$ $\quad I = J$

$\hat{W} = 31$ $\quad I = 12$

$\hat{H} = ((32 - 6 + 2(1))/2) + 1$ $\quad \therefore$ Output size $= 31 \times 15 \times 12$

$\hat{H} = 15$

b) # Parameters = (kernel height · kernel width · input channels + 1) · output channels

$= (3 \cdot 3 \cdot 5 + 1) \cdot 6$

Parameters $= 276$

c) $\hat{W} = ((128 - 8)/4) + 1$ $\quad I = J$

$\hat{W} = 31$ $\quad I = 3$

$\hat{H} = ((32 - 8)/4) + 1$ $\quad \therefore$ Output size $= 31 \times 7 \times 3$

$\hat{H} = 7$