

1.

	A	B	C	D	E
B	2				
C	4	4			
D	6	6	6		
E	6	6	6	4	
F	8	8	8	8	8

Shortest pairwise distance: $\begin{array}{cc} A & B \\ | & | \\ \hline \end{array}$ $(2)/2 = 1$

	AB	C	D	E	F
AB					
C	4				
D	6	6			
E	6	6	4		
F	8	8	8	8	

$$CAB = (4+4)/2 = 4$$

$$DAB = (6+6)/2 = 6$$

$$EAB = (6+6)/2 = 6$$

$$FAB = (8+8)/2 = 8$$

New shortest distance: $\begin{array}{ccccc} A & B & C & D & E \\ | & | & | & | & | \\ \hline \end{array}$ $4/2 = 2$

	ABC	DE	F
ABC			
DE	6		
F	8	8	

$$ABC \ DE = (6+6+6+6+6+6)/6 = 6$$

$$ABC \ F = (8+8+8)/3 = 8$$

$$F \ DE = (8+8)/2 = 8$$

New shortest distance: $\begin{array}{ccccc} A & B & C & D & E \\ | & | & | & | & | \\ \hline \end{array}$ $6/2 = 3$

	ABCDE	F
ABCDE		
F	8	

$$ABCDE \ F = (8+8+8+8+8)/5 = 8$$

New shortest distance:
 $8/2 = 4$

