



<b>WRL reference</b>	M03 D01
<b>Module</b>	M03 Animal Behaviour
<b>Data set</b>	D01 Bull elephant dominance relationships after contraception

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### Hint for filling in the Dyad matrix:

1. Printout the file **"M03 D01 DOMINANCE RAW DATA.xls"** (found in the 4.' Data for tasks' folder)
2. Go to the column headed Asiphephe
  - a. Look at the contests between Asiphephe V Ingani (the first down column 1 which holds the loser's name.
  - b. Asiphephe never won so gets a 0
  - c. Now look at it the otherway –Ingani V Asiphephe. Ingani won x1
  - d. So the outcome for this DYAD contest as Ingani the winner – to help keep the tally put a X in the box Column 2 Row 3
  - e. Now go down to the next contest Asiphephe has and this is with Khumbula. If you look at the contest both ways Asiphephe wins 31 times and Kumbula only 6 so you give Asiphephe a tick in Column 2 row 4. (like a football game final score Asiphephe 31 and Khumbula 6)
  - f. Work your way down the Asiphephe column to see how many times the elephant has won overall (a tick) and lost (a X). Total this at the bottom of the column which should be 3 Ticks.
3. Now continue this process for the next elephant in the next column – Ingani.
4. Proceed to the end of the column so you have compared all of the elephant dyad contests.
5. Now check the total for the ticks for each column – should number 7 to 0, 7 being for the most dominant elephant which is Ingani and 0 for the least which is Mgangane.
6. Now go to the blank table and enter the names across the columns in the order for the ticks e.g. Ingani has 7 so goes in the top row of column 2. Shayisa scored 6 so goes into Column 3 row 1 and so on.
7. Then in column 1 put the names in the same order going down column 1 to complete the matrix.
8. NOW THE FIDDLY BIT - from the original 'Raw data table' fill in the figures for the matrix going down column 2 - BE VERY CAREFUL
  - a. Ingani(winner) V Shayisa (loser) was 12
  - b. Ingani(winner) V Kohlewe (loser) was 2
  - c. Ingani(winner) V Lucky (loser) was 1
  - d. Ingani(winner) V Asiphephe (loser) was 1
  - e. Ingani(winner) V Khumbula(loser) was 1
  - f. Ingani(winner) V Ntini(loser) was 2
  - g. Ingani(winner) V Mgangane (loser) was 1
9. Now do the same for the next column for Shayisa
10. To check you have done it correctly, all the 0's should be above the diagonal grey filled in boxes going from top left to bottom right.

