Ex. 1. Make a rose diagram (plot of direction and amplitude) of the data in Table 22.3, using as $r_{\text{max}}$ eq 22.13. Is there a preferred direction for stream orientation in the data?

Ex. 2. (i) Give $H_0$, $X^2_{\text{crit}}$ ($df, P_{\text{crit}}=0.05$) for data in Table 22.1.

(ii) Calculate $X^2_{\text{obs}}$ from expected frequencies of meteorite per quadrat if random, using eq 22.2, and listed observed frequencies.

(iii) Make decision on $H_0$, and inference.

Ex. 3. Test the "clusteredness" of the Table 22.1 data using variance-to-mean ratio.

(i) Give $H_0$ for variance-to-mean ratio; $t_{\text{crit}}$ ($df, P_{\text{crit}}=0.05$).

(ii) Calculate $t_{\text{obs}}$; evaluate $H_0$; make inference. Why is the inference based on the 'opposite' reading of $t_{\text{obs}}$ vs. $t_{\text{crit}}$ as we normally use?