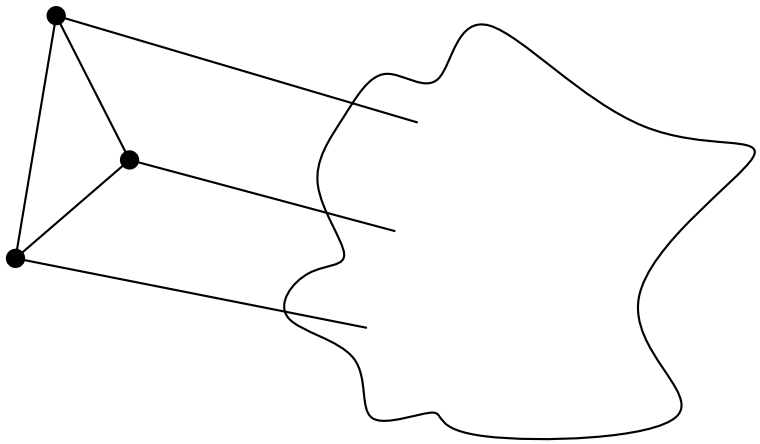
Matroid theory: exercise sheet 7

1. What happens if we replace 'with an N-minor' by 'of which N is a minor' everywhere in the splitter theorem? Does it still hold? Hint: consider graphs of the following kind:.



2. Show that the class of graphic matroids has no splitter. Let k be a finite field or the field of real numbers. Show that the class of matroids representable over k has no splitter.

3. Find all 3-connected matroids M with at least 8 elements but with no element e such that either $M\backslash e$ or M/e is 3-connected.

4* Find all 3-connected matroids M with no element e such that either $M\backslash e$ or M/e is 3-connected.