

# task\_76ksbc114ylxftfl\_with\_calculation

## Student Group

First Name	Surname	Matrikel Nr.

## Table of Contents

Exercise E2 Magnetic Field Lines (written test, approx. 4 % of a 120-minute written test, SS2021) .....	2
---	---

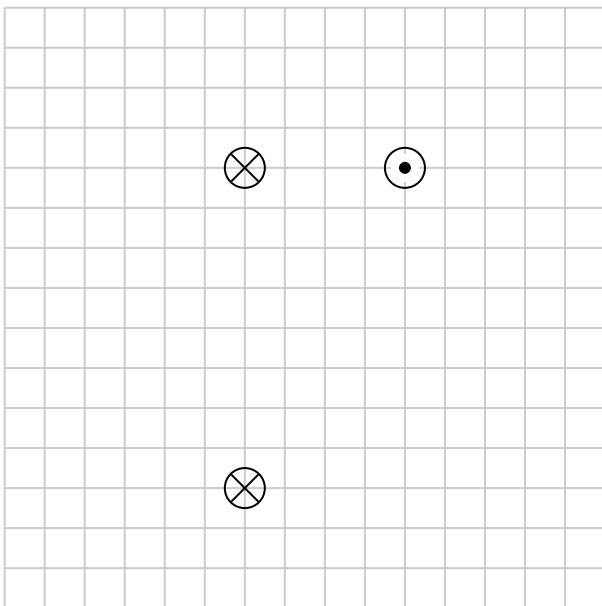
magnetostatic, field lines, exam ee2 SS2021

### Exercise E2 Magnetic Field Lines (written test, approx. 4 % of a 120-minute written test, SS2021)

Several parallel conductors are projecting out of the plane.

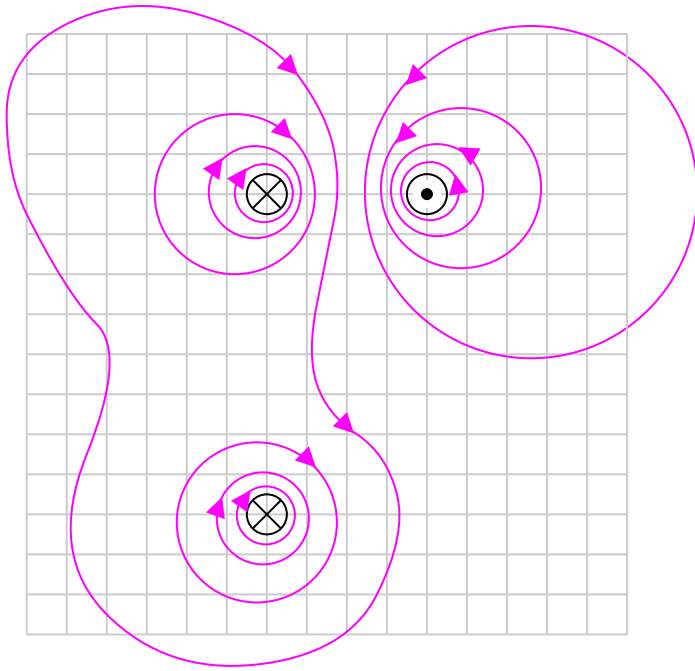
The same current  $I$  flows through all the conductors in different directions (see image below).

Sketch at least 10 field lines of the magnetic field strength  $\vec{H}$  in such a way that the different properties of the field lines (e.g. direction and density) can be seen.



Result

- high density of field lines near the conductors
- direction of the field lines given by the right-hand rule
- magnetic field has closed field lines
- resulting field given by superposition of field lines



From:  
<https://mexle.te.hs-heilbronn.de/> - MEXLE Wiki

Permanent link:  
[https://mexle.te.hs-heilbronn.de/electrical\\_engineering\\_and\\_electronics/task\\_76ksbc114ylxftfl\\_with\\_calculation](https://mexle.te.hs-heilbronn.de/electrical_engineering_and_electronics/task_76ksbc114ylxftfl_with_calculation)

Last update: **2024/07/03 08:24**

