

MATH 226 midterm 1 preparation guide

Midterm 1 will take place on Monday, September 25, during the class time.

You can bring one formula sheet in your own handwriting. No other notes, books or calculators are allowed.

Midterm 1 will cover sections 10.1-10.8:

- Vectors and operations. Addition, scalar multiplication, dot product, cross product: formal properties and geometric meaning, vector projections:
Suggested exercises: Section 10.3: 33–40, 47–52, Section 10.4: 48–54
- Vector and coordinate equations of lines and planes, normal vectors, distance from points to planes.
Suggested exercises: Section 10.5: 21–32, 53–60
- Vector functions, space curves, tangent lines and vectors, differentiation rules.
Suggested exercises: Section 10.7: 65–68, 75–83
- Arc length parametrization of space curves.
Suggested exercises: Section 10.8: 1–4, 9–10, 17–19