For the programming task you have to use C++
A pull request has to be made for the solutions(C++ code and generated images).
The pull request is in your repository from the github classroom assignment:
https://classroom.github.com/a/zh9ighUl
For questions and help refer to the course's discord server:
https://discord.gg/kkr83dZS
Or the course's e-mail:
raytracingcourse@chaos.com

Task 1.

Add a triangle representation to your C++ projects. It should consist of 3 vertices, each of which can be represented by a 3D vector. The order of the vertices matters.

Task 2.

- Calculate the cross product (AxB) between two vectors:
  - A = (3.5, 0, 0) and B = (1.75, 3.5, 0)
- Calculate the cross product (AxB) between two vectors:
  - A = (3, -3, 1) and B = (4, 9, 3)
- Calculate the area of the parallelogram formed by vectors:
  - A = (3, -3, 1) and B = (4, 9, 3)
- Calculate the area of the parallelogram formed by vectors:
  - A = (3, -3, 1) and B = (-12, 12, -4)

Task 3.

- Find the normal vector for a triangle with the following vertices:
  - A = (-1.75, -1.75, -3)
  - B = (1.75, -1.75, -3)
  - C = (0, 1.75, -3)

Answer: (0.0, 0.0, 1.0)

- Find the normal vector for a triangle with the following vertices:
  - A = (0, 0, -1)
  - B = (1, 0, 1)
  - C = (-1, 0, 1)

Answer: (0.0, -1.0, 0.0)

- Find the normal vector for a triangle with the following vertices:
  - A = (0.56, 1.11, 1.23)
  - B = (0.44, -2.368, -0.54)
  - C = (-1.56, 0.15, -1.92)

Answer: (0.756420, 0.275748, -0.593120)

- Calculate the areas of these triangles.