

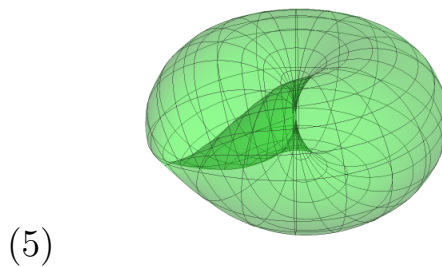
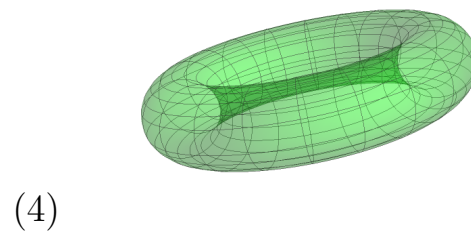
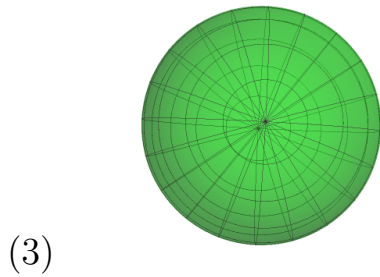
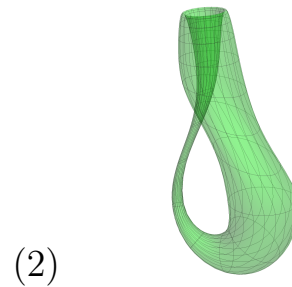
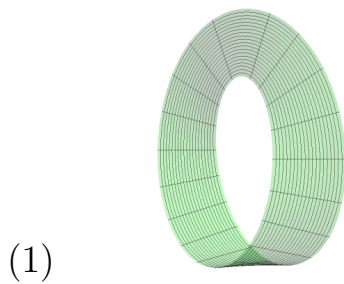


Remarkable surfaces

Name _____ Date _____

Try to remember names of remarkable surfaces in space. Then answer the questions:

- a) is a surface orientable?
- b) is it possible to glue a surface of such type from a flat shape?
- c) is it possible to find a closed curve on the surface which cannot be contracted to point?

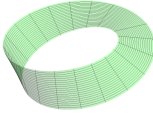
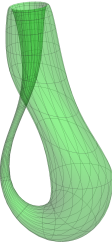
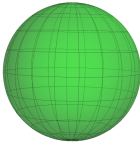
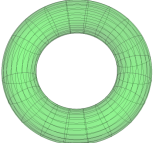
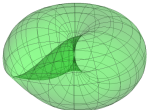




Answers

Try to remember names of remarkable surfaces in space. Then answer the questions:

- a) is a surface orientable?
- b) is it possible to glue a surface of such type from a flat shape?
- c) is it possible to find a closed curve on the surface which cannot be contracted to point?

- | | | | |
|-----|-------------------------------------------------------------------------------------|------------------|------------------------|
| (1) |  | Möbius ring | Answers: No, No, Yes |
| (2) |  | Klein bottle | Answers: No, No, Yes |
| (3) |  | Sphere | Answers: Yes, No, No |
| (4) |  | Torus | Answers: Yes, Yes, Yes |
| (5) |  | Projective plane | Answers: No, No, Yes |