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# Feedback 17-18

**General comments:** It was a very short homework, with two short questions. The difficulty was that both questions are not "to compute following an algorithm" but "to think".

**Question 17.4:** This question was mostly done reasonably well.

- It was much easier for me to read the solution when it was illustrated! So, whenever it is possible, please, draw a picture!
- Please, introduce the notation, when you are using something which is not standard in the course (in this question, the vector normal to the plane).

**Question 18.4**

- All successful solutions used the Clairaut relation. When you want to use it, a good practice would be to say something like "By Clairaut relation, ...", or even "As $S$ is a surface of revolution, the geodesic should satisfy the Clairaut relation".
- The question about self-intersections turned out to be difficult (no student in the class answered it in full detail).
- In fact, the self-intersection question is easy, if you think about a local isometry of a plane (where we know all geodesics) and a cone.