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Feedback 11-12

General comments:

- In general, this turned out to be an easy set of exercises - almost everybody did very well!
- Clarification about the term *isometry*:
  by an isometry of two surfaces (or isometry of a surface to itself) we mean a **global isometry** (i.e. a bijective local isometry).

  Checking that
  $$\langle f_u, f_u\rangle_{f(p)} = E, \qquad \langle f_u, f_v\rangle_{f(p)} = F, \qquad \langle f_v, f_v\rangle_{f(p)} = G$$
  only shows that the map is a local isometry.

Question 11.2: no comments, thanks for clear solutions!

Question 12.1:

- In this question, the geometric meaning of the transformation f - rotation by an angle θ - immediately implies that
  $$f \circ x(v, u) = x(v, u + \theta)$$
  (in assumption of a natural choice of the parametrisation we always use for surfaces of revolution).
- By some reason, in many solutions the authors assumed that the term "rotation" means that f is given by a matrix of the rotation, so that one should apply the transformation to the surface (i.e. multiply the matrix 3×3 by a vector) to get the image.
- Moreover, in many solutions the results of this matrix multiplication (containing the formulae like $\cos u \sin\theta - \sin u \cos\theta$) where not identified with $\cos(u + \theta)$ and $\sin(u + \theta)$ which implied much longer computations than needed.