

## Feedback 13-14

### Question 13.4:

- As the pseudosphere is a [surface of revolution](#), it makes sense to use the special formulae we have derived for them (see Example 9.13). This should save a lot of computational efforts!
- In computations with trigonometric (or hyperbolic) functions I would advise **not to use “tan”, “sec”, etc.** Which of the products

$$\frac{\sin t}{\cos t} \cdot \cos t \cdot \frac{1}{\sin t} \quad \text{and} \quad \tan t \cos t \csc t$$

would you easier compute?

### Question 14.2:

- When you use the same (long) expression many times - it would make sense to [introduce a notation](#). In particular, in this type of questions this happens with  $\|x_u \times x_v\|$  and  $EG - F^2$ .

- Have you noticed that

$$\|x_u \times x_v\|^2 = EG - F^2$$

in all the examples? Can you explain?

(Use that both values are actually the area of the same parallelogram).

- In part (b), one could notice that the parametrization  $x$  is principal, so, one can use that  $\kappa_1 = \frac{L}{E}$  and  $\kappa_2 = \frac{N}{G}$  (and there is no need in computing  $K$  and  $H$ ).
- However, when you use some formula (here  $\kappa_1 = \frac{L}{E}$  and  $\kappa_2 = \frac{N}{G}$ ), you need to give the reason, why it is applicable here. So, here, you need to [state explicitly](#), that the parametrisation is principal (or, that  $F = M \equiv 0$ ).