```
1 for triangle K in grid.triangles:
2    for DoF ϕ_i in K.dofs:
3        b_h[ϕ_i.globalIndex] += f |det(∇T_K^{-1}(x))| ∫_K ϕ_i dx
4        for DoF ϕ_j in K.dofs:
5            A_h[ϕ_i.globalIndex, ϕ_j.globalIndex] += ∫_K
```