

# Solutions Guide to Differential Geometry

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## Abstract

Solutions to the textbook “Elementary Differential Geometry”, Revised Second Edition by Barrett O’Neill.

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# 1 Calculus on Euclidean Space

## 1.1 Euclidean Space

1. (a)  $(x^2y)(y \sin(z))^2 = x^2y^3 \sin^2(z)$   
(b)  $(2xy)(y \sin(z)) + \sin(z)(x^2y) = (2xy + x^2y) \sin(z)$   
(c)  
(c)