

Svar till tentan MVE035 2014-08-25

1. (a) Sadelpunkt.
(b) $x \frac{\partial z}{\partial x} + y \frac{\partial z}{\partial y} = u \frac{\partial z}{\partial u}$
(c) $y'(1) = -\frac{5}{13}$ (plus motivering!).
(d) $\int_0^1 \left(\int_x^1 \left(\int_y^1 f(x, y, z) dz \right) dy \right) dx$
2. (a) 16π
(b) 16π
(c) 4π
3. (a) $(e^{y^2}, 2xye^{y^2})$
(b) $\pi - 2$
4. $\frac{1}{4}$
5. $\sqrt{2\sqrt{3}}$
6. $\frac{9\sqrt{10}}{4}$