Københavns Universitet
PoP Assignment 2

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Contents

1 section 1

1.a question 1

1.a.1 question 1.1

$$\left(82x + 2y^2 \frac{1}{2}\right)$$

$$\left(82x + 2y^2 \frac{1}{x}\right)$$

$$\left(2x + 2y^2 \frac{4}{\frac{0}{a_1}}\right)$$

$$\lim_{n \to \infty} \left(\frac{1}{n}\right)$$

$$\lim_{n \to \infty} \left\{\frac{1}{n}\right\}$$

$$\text{math is cool} = true$$

$$e^{x \cdot 0} \bullet \nabla f \circ g$$

$$1 + 10000000000000000000000000000$$
$$20 + 1$$

$$\frac{\partial u}{\partial x} = y\cos(xy+1) = -1\cos(1\cdot(-1)+1) = -1\cos(0) = -1$$
$$\frac{\partial v}{\partial x} = 2x = 2\cdot 1 = 2$$

2 I den sidste afleveringsopgave betragtede vi funktionen $f : \mathbb{R}^2 \to \mathbb{R}$ givet ved

$$f(x,y) = \begin{cases} \dfrac{x^2 y}{x^4 + y^2}, & (x,y) \neq\leq (0,0) \\ 0, & (x,y) = (0,0) \end{cases}$$

hassan

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1 if (1==2) then kys
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Figure 1: Maple plot af funktionen fra opgave 4: $f(x,y) = \begin{cases} \frac{x^2y}{x^4+y^2}, (x,y) \neq (0,0) \\ (0,0), (x,y) = (0,0) \end{cases}$

Figure 2: Maple kode til at finde de partielt afledte af $f(x,y)$ ved $(x,y) = (5,5)$