



# Partial derivatives

## Interactive quizzes

Robert Mařík

October 17, 2006

ROBERT MAŘÍK  
Partial derivatives  
file pd1.tex

Partial...

Look at three or four or twenty my quizzes and  
then fill in my \_\_\_\_\_ please!



## 1. Partial derivatives

Some instructions (how to write mathematical functions ...) are on the main page with quizzes. An example is on the next page and quizzes follow.

Home Page

Print

Title Page



Page 1 of 5

Go Back

Full Screen

Close

Quit



ROBERT MAŘÍK  
Partial derivatives  
file pd1.tex

Partial...

Home Page

Print

Title Page

Page 2 of 5

Go Back

Full Screen

Close

Quit

- 9.  $\frac{\partial}{\partial x} \left( \frac{x}{x^2+y^2+1} \right) =$   **Ans**
- 10.  $\frac{\partial}{\partial x} \left( \frac{x}{x^2+y^2+1} \right) =$   **Ans**
- 11.  $\frac{\partial}{\partial x} (x + y) =$   **Ans**
- 12.  $\frac{\partial}{\partial x} (x + y \ln(x + y)) =$   **Ans** 1
- 13.  $\frac{\partial}{\partial x} (x + y \ln(x + y)) =$   **Ans**
- 14.  $\frac{\partial}{\partial y} \left( \frac{xy}{x^2+1} \right) =$   **Ans** 3
- 15.  $\frac{\partial}{\partial x} \left( \frac{x+y}{x-y} \right) =$   **Ans** 2
- 16.  $\frac{\partial}{\partial y} \left( \frac{x+y}{x-y} \right) =$   **Ans**
- 17.  $\frac{\partial}{\partial y} \left( \frac{x+y}{x-y} \right) =$   **Ans**
- 18.  $\frac{\partial}{\partial y} \left( \frac{x+y}{x-y} \right) =$   **Ans**

Správně  
Correct

Špatně  
Wrong

Správně ale až na čtvrtý pokus  
The 4-th answer is correct

Dvakrát špatně pak jsme zobrazili správný výsledek kliknutím na tlačítko Ans  
Two wrong answers. The correct answer has been obtained by clicking the Ans button.



Finding...

Home Page

Print

Title Page

Navigation arrows

Navigation arrows

Page 3 of 3

Go Back

Full Screen

Close

Quit



**Quiz** Find derivatives, simplify and write your result. Then press Enter.

The  button discloses the correct solution. But try to find your answer at least seven times.

1.  $\frac{\partial}{\partial x} (x^2y + 3) =$

2.  $\frac{\partial}{\partial y} (x^2y + 3) =$

3.  $\frac{\partial}{\partial x} (xy + 3 \ln y) =$

4.  $\frac{\partial}{\partial y} (xy + 3 \ln y) =$

5.  $\frac{\partial}{\partial x} (e^{x^2+y^2}) =$

6.  $\frac{\partial}{\partial y} (e^{x^2+y^2}) =$

7.  $\frac{\partial}{\partial x} (xe^{x^2+y^2}) =$

8.  $\frac{\partial}{\partial x} (ye^{x^2+y^2}) =$

9.  $\frac{\partial}{\partial x} \left( \frac{x}{x^2 + y^2 + 1} \right) =$

10.  $\frac{\partial}{\partial y} \left( \frac{x}{x^2 + y^2 + 1} \right) =$

11.  $\frac{\partial}{\partial x} (x + y \ln(x + y)) =$

12.  $\frac{\partial}{\partial y} (x + y \ln(x + y)) =$



13.  $\frac{\partial}{\partial x} \left( \frac{xy}{x^2 + 1} \right) =$

14.  $\frac{\partial}{\partial y} \left( \frac{xy}{x^2 + 1} \right) =$

15.  $\frac{\partial}{\partial x} \left( \frac{x + y}{x^2 + 1} \right) =$

16.  $\frac{\partial}{\partial y} \left( \frac{x + y}{x^2 + 1} \right) =$

17.  $\frac{\partial}{\partial x} \left( \frac{x + y}{x - y} \right) =$

18.  $\frac{\partial}{\partial y} \left( \frac{x + y}{x - y} \right) =$

19.  $\frac{\partial}{\partial x} \left( x^2 + y^2 + \frac{2}{xy} \right) =$

20.  $\frac{\partial}{\partial y} \left( x^2 + y^2 + \frac{2}{xy} \right) =$

21.  $\frac{\partial}{\partial x} \left( (x + 1) \ln(x + y + 1) \right) =$

22.  $\frac{\partial}{\partial y} \left( (x + 1) \ln(x + y + 1) \right) =$

23.  $\frac{\partial}{\partial x} \left( (x + 1) \ln(x^2 + y^3 + 1) \right) =$

24.  $\frac{\partial}{\partial y} \left( (x + 1) \ln(x^2 + y^3 + 1) \right) =$

25.  $\frac{\partial}{\partial x} \left( x \operatorname{atan} \frac{x}{y^2} \right) =$

Home Page	
Print	
Title Page	
◀◀	▶▶
◀	▶
Page 4 of 5	
Go Back	
Full Screen	
Close	
Quit	



Home Page

Print

Title Page



Page 5 of 5

Go Back

Full Screen

Close

Quit

26.  $\frac{\partial}{\partial y} \left( x \operatorname{atan} \frac{x}{y^2} \right) =$

27.  $\frac{\partial}{\partial x} \left( x \operatorname{atan} \frac{y}{x} \right) =$

28.  $\frac{\partial}{\partial y} \left( x \operatorname{atan} \frac{y}{x} \right) =$

29.  $\frac{\partial}{\partial x} \left( \frac{x^2}{x^3 + y^3} \right) =$

30.  $\frac{\partial}{\partial y} \left( \frac{x^2}{x^3 + y^3} \right) =$

31.  $\frac{\partial}{\partial x} \left( \frac{x^2 y}{x^3 + y^3} \right) =$

32.  $\frac{\partial}{\partial y} \left( \frac{x^2 y}{x^3 + y^3} \right) =$